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SEVENTY-THIRD ANNUAL REPORT

OF THE

BOARD OF EDUCATION.

JANUARY, 1910.

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STATE BOARD OF EDUCATION.

1910.

BY APPOINTMENT.

Term expires May 1.		
1913.	FREDERICK P. FISH, *Chairman*,	Brookline.
1912.	Miss SARAH LOUISE ARNOLD,	Newton Center.
1913.	Mrs. ELLA LYMAN CABOT,	Boston.
1912.	SIMEON B. CHASE,	Fall River.
1911.	LEVI L. CONANT,	Worcester.
1911.	THOMAS B. FITZPATRICK,	Brookline.
1913.	FREDERICK W. HAMILTON,	Somerville.
1911.	PAUL H. HANUS,	Cambridge.
1912.	CLINTON Q. RICHMOND,	North Adams.

COMMISSIONER OF EDUCATION.

DAVID SNEDDEN, Ford Building,	Boston.

DEPUTY COMMISSIONERS OF EDUCATION.

WILLIAM ORR, Ford Building,	Boston.
CHARLES A. PROSSER, Ford Building,	Boston.

TREASURER.

GEORGE H. MARTIN, Ford Building,	Boston.

AGENTS.

GEORGE H. MARTIN,	Lynn.
JOHN T. PRINCE,	West Newton.
JAMES W. MACDONALD,	Stoneham.
JULIUS E. WARREN,	Worcester.
FREDERIC LYNDEN BURNHAM,	Cambridge.
FRANK WALDO, Ford Building,	Boston.

ASSISTANTS.

Mrs. AGNES CAROLINE BLAKE,
Chief Clerk and Secretary to the Commissioner.

Miss ESTHER E. ELWELL.
GEORGE H. VARNEY.
Miss GRACE E. WYETH.
Miss SARAH A. HOLT.

ANNUAL REPORT

OF THE

BOARD OF EDUCATION.

ANNUAL REPORT.

The Board of Education has the honor to submit herewith to the Legislature its annual report. Appended to it are the reports of the several normal schools, the report of the acting treasurer and the abstract of the public school returns, as required by law.

In accordance with the provisions of chapter 457 of the Acts of 1909, the reorganized Board of Education took office on the first day of July, 1909. Its first meeting was held on the morning of July 2, 1909. The Board organized by the election of Frederick P. Fish as chairman and Mrs. Ella Lyman Cabot as clerk. Pending the development of a complete organization, committees were appointed to look after the many details of the business of the Board and to insure supervision of the normal schools.

The Board found itself charged with the duties and responsibilities of both the State Board of Education and the Commission on Industrial Education. Each of these organizations had the necessary machinery for discharging the large and important duties which belonged to it, but this machinery, to a substantial extent, ceased to exist on the last day of June, 1909, while the necessity of continuing and carrying on the work remained. It seemed obvious to the Board that its first duty was to provide against any injury to the educational interests of the Commonwealth through the abrupt transition involved in a radical reorganization. The arrangements made were adequate for this purpose.

Mr. George H. Martin, formerly secretary of the State Board of Education, was appointed acting treasurer. He was also given charge of the necessary detail of the office until the appointment of a commissioner. All the other persons employed by the State Board of Education and by the Commission on

Industrial Education, except the secretary of the commission, whose office had been abolished, were continued in their employment at the salaries which they had been previously receiving. It was expressly stipulated, however, that all such appointments were made at the pleasure of the Board, and should be terminable at any time when, as the work of the Board developed, new methods of administration should become desirable.

The Board then gave its attention to the affairs of the two organizations which had been consolidated into a single Board of Education, and found their work in such shape that it was not difficult to carry on the same until new plans should be adopted and new systems devised. In the department of Industrial Education negotiations were pending concerning the status of several schools which had just been established or were about to be established under the statute. These negotiations were continued and such new matters as presented themselves were taken up, notably, the establishment of an independent industrial school for girls in the city of Boston, which is now in successful operation.

In the opinion of the Board, the most important business which was before it, aside from the protection of the existing educational interests of the Commonwealth, was the appointment of a Commissioner of Education. This was no easy task. Taking office as it did at the beginning of the vacation season, the Board, though it had no difficulty in securing the attendance and service of its own members during the summer, found itself hampered somewhat in its efforts to get into relations with other persons. The Board was deeply impressed with the very great importance of the wise selection of a commissioner, and made extensive inquiries and careful search.

After mature deliberation, the Board unanimously appointed Dr. David Snedden of Teachers College, Columbia University, who accepted the appointment, and began his work Nov. 15, 1909.

Dr. Snedden has had a large experience as a teacher and as a student of educational methods. He is thoroughly acquainted with the theories of education and with the school systems of this country and of Europe. It is the opinion of the Board that his administration will insure the maintenance of that high standard which the State has always demanded, and an earnest and definite effort to promote the development of our public school education on sound principles.

The Board has been of the opinion that it would be unwise to consider the appointment of deputy commissioners until the commissioner had been appointed, and could be consulted with reference to the choice of his subordinates. At the date of this writing these appointments have not been made.

The Board regarded it as unwise to attempt the formulation of new policies or the decision of important and far-reaching questions until the appointment of the commissioner. It would have been a mistake to hamper the commissioner by premature action. The Board believes that it should look to the commissioner, with his knowledge of details and grasp of the situation, to suggest the course of development which will lead to the best results, as well as to formulate and carry into effect plans adopted by the Board.

With the appointment of the commissioner and the pending appointment of deputy commissioners, the Board has now passed through the period of comparative inactivity inevitable under the circumstances of its appointment, and is now in a position to take up its real work in earnest.

Massachusetts may well be proud of its educational history. It has contributed largely to the development of methods and principles of public school education that have been of the utmost importance. These principles and methods are of permanent value, but in view of the vast changes during recent years in the social, economic and industrial life of the community, those who have the responsibility of controlling and directing the educational activities of the State should recognize the necessity of adjusting public school conditions to the needs of the times. The Board believes that such an adjustment can be made without sacrificing the advantages of our present school system. It will be the effort of the Board to realize this belief in the schools of Massachusetts.

The statistics of the public school system of the Commonwealth for the year 1908–09 show steady development. A widespread interest in vocational education has manifested itself throughout the State, and some attempts to develop agricultural or industrial education apart from those organized by the commission on Industrial Education have been made by rural and high schools. Since the reorganization of the State Board no material changes in the school system have occurred, and every effort has been made to further developments already begun. The agents of the former Board have continued to visit schools, address institutes and otherwise stimulate public education.

The normal schools have in most cases increased their attendance and continued their plans for expansion and greater usefulness.

The physical condition of the normal school buildings is such in many cases as to require prompt attention. The most important immediate demand is for the replacement of some of the dormitory facilities at Bridgewater, where a wooden building erected in 1869 has reached such a stage that its further repair is impracticable and its further continued use extremely undesirable. It is the intention of the Board to ask the State through the Legislature to provide funds for this replacement.

The Framingham State Normal School is in pressing need of training school facilities for which land has already been set apart by the town. The Board intends to investigate the desirability of asking for an appropriation for the much-needed training school building.

The Commission on Industrial Education had actively promoted the establishment of a number of independent industrial schools, both day and evening. These came under the supervision of the reorganized State Board, and, with the exception of two evening schools, have continued their former development. Other schools of this type are on the eve of being established.

The independent industrial schools having full day sessions are the following: Beverly Industrial School, Boston Trade School for Girls, Montague Agricultural School, New Bedford Industrial School, Lawrence Industrial School, and Smith's Agricultural School, Northampton. The Worcester School of Trades will open early in 1910. A school of the same type exists at Newton, but so far has been supported from private funds.

Owing to legal obstacles, it has not been possible for certain evening industrial schools, approved by the Commission on Industrial Education, to which the present State Board succeeded, to procure the State aid which they had expected. In spite of this, ten of these schools have continued along the lines originally planned by the commission.

The following evening industrial schools have continued their trade school work: Boston (one center and branches), Brockton, Cambridge, Chicopee, Lawrence, Natick, New Bedford, Pittsfield, Taunton and Walpole.

A report will be made to the Legislature of the amount that the State is called upon to appropriate as its portion of the maintenance of independent industrial schools approved by the Board, and the amount which the State is called upon to pay to cities and towns as partial reimbursement for tuition fees paid by such cities and towns for students who have attended such independent industrial schools outside of the place of their own residence.

FREDERICK P. FISH, *Chairman,*
ELLA LYMAN CABOT, *Clerk,*
SARAH LOUISE ARNOLD,
LEVI L. CONANT,
SIMEON B. CHASE,
THOMAS B. FITZPATRICK,
FREDERICK W. HAMILTON,
PAUL H. HANUS,
CLINTON Q. RICHMOND,
Members of the Board.

DEC. 31, 1909.

REPORTS

OF

NORMAL SCHOOLS.

STATE NORMAL SCHOOL, BRIDGEWATER.

ARTHUR C. BOYDEN, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

Arthur C. Boyden,	History, and the history of education.
Albert G. Boyden, Principal Emeritus,	Psychology and pedagogy.
Franz H. Kirmayer,	Classics and modern languages.
William D. Jackson,	Physical science, advanced mathematics.
Charles P. Sinnott,	Geography, physiology and hygiene.
Harlan P. Shaw,	Chemistry, mineralogy.
Frank E. Gurney,	Mathematics, astronomy.
Charles E. Doner,	Supervisor of penmanship.
Clara C. Prince,	Music, algebra.
Fanny A. Comstock,	Mathematics, English.
Lillian A. Hicks,	Supervisor of training, child study.
Elizabeth H. Perry,	Supervisor of manual arts.
Grace C. Smith,	Assistant in manual arts.
Elizabeth F. Gordon,	Supervisor of physical training.
Gretchen Osterhoudt,	Assistant in physical training.
Alice E. Dickinson,	English.
Florence I. Davis,	Biology, nature study, school gardening.
Anna W. Brown,	Vocal expression.
Anne M. Wells,	Supervisor of kindergarten-primary course

INSTRUCTORS IN THE MODEL SCHOOL.

Brenelle Hunt,	Principal.
Ethel P. Wheeler,	Ninth grade.
Martha M. Burnell,	Eighth grade.
Myra E. Hunt,	Seventh grade.
Nellie M. Bennett,	Sixth grade.
Jennie Bennett,	Fifth grade.
Bertha O. Metcalf,	Fifth and sixth grades.
Mary L. Perham,[1]	Fourth grade.
Sarah V. Price,[2]	Fourth grade.
Sarah W. Turner,	Third grade.
Neva I. Lockwood,	Second grade.
Flora M. Stuart,	First grade.
Frances P. Keyes,	Kindergarten.

GROWTH.

One hundred and eighty applicants presented themselves at the entrance examinations in June and September of this year: of these 150 were accepted. This is the largest entering class in the history of the school, and brings the enrollment up to nearly 300 students. The number of young men in the school is now 44, — an increase of 50 per cent. over that of last year.

---

[1] Resigned.

[2] Substitute.

A very large proportion of the candidates entered upon certification. This plan of admission on certification by high schools has materially improved the quality of the student body. I would suggest the value of greater elasticity along some lines in the requirements for admission, in order to meet the varying courses of good high schools.

The constant increase during the last few years in the number entering upon the longer courses leads to the conclusion that the school may reasonably expect an annual attendance of 300 students. This will require additions in certain directions to the facilities of the school, which are now taxed to the utmost. The opportunities offered in the three and four years' courses for differentiation of studies and for abundant practice are becoming more and more attractive to high school graduates.

New Courses.

In connection with the new natural science garden a course in practical biology has been introduced this year, with marked success. It includes observations, experiments and garden work along four lines, as follows: —

I. Movements of plants which secure sunlight; protection of pollen, and pollination; seed distribution; mechanical support.

II. Propagation of plants by cutting, graft, corm, bulb, rhizome and seed.

III. The fundamental principles of agriculture and plant breeding.

IV. Insects, mollusks and myriapods of the garden: their effect upon the plants, and measures for their prevention and destruction.

This course is intended to make the work in nature study in the upper grades contribute directly to agriculture and school gardening. In order to make it serve its purpose effectively, it is essential that there should be a greenhouse, arranged for laboratory work during the colder months of the year.

The new course in manual arts is divided into three sections, namely: —

I. *Industrial Arts.* — Industrial materials: their production and manipulation; knowledge of the typical industries through actual construction; knowledge of design (expressed by working drawings), constructive and decorative.

II. *Pictorial Drawing.* — Perspective effects; technique of the media; knowledge of pictorial design; making pictorial drawings.

III. *History of Art.* — Study of historic handicrafts; study of the fine arts, — architecture, sculpture, painting.

The large number of men in the school makes it desirable to expand the courses in manual arts so as to thoroughly fit those who are to become principals of grammar schools for the introduction into these schools of such manual work as will give a basal preparation for the industrial courses that the pupils may pursue upon their graduation. At present the school has not sufficient room to properly carry out these courses; therefore, a new building for this department of work is asked for, in order that adequate facilities may be provided.

Practice Work.

The practice work has been extended to rural and graded schools in Bridgewater and eight other towns. Travelling expenses of the students are paid by the towns in consideration of the assistance rendered, and under this arrangement we have more applications for student help than we can fill. The results have justified it as an effective as well as an economical plan, since it has added greatly to the efficiency of our students in their preparation for teaching.

In the model school the student teachers are assisting in the working out of two important school problems: —

First. — The combination of kindergarten principles and primary methods is being applied in a small subprimary class of children, with the promise of much that will be suggestive along the line of child development. In the kindergarten-primary course the actual teaching is being done by the student teachers, under the direction of the supervisor of training.

Second. — In the grammar grades they are helping to solve the problem of how to deal with the slower children, who are unable to keep pace with the rapid movement of the grades, thus losing a number of years in their course, and often dropping out as soon as the law allows. Small groups of these children, while doing the general work in their grades, are placed under a special teacher for work in certain subjects. By the aid of the student teachers, the children, either in groups or as individuals, can be taught the essentials of the fundamental school subjects, together with much manual work that will develop power to grasp mental processes through concrete examples. The children are thus saved to the school, getting a better education than they would otherwise obtain, and the normal students are learning how to deal with such cases when they go out to teach in the public schools.

In the manual arts department, those who develop ability as leaders are placed in charge of small groups of students or children, under the direction of the supervisor, and gain power to take charge of manual training classes. The three and four years' courses allow this differentiation, and give, as well, opportunity for an abundance of practice teaching.

New Buildings.

Under the direction of the visitors, plans are being prepared for the replacement of the wooden dormitories by modern brick buildings, as suggested in the report of last year. These plans with specifications and estimates will be ready for submission to the coming Legislature.

To meet the requirements of the course in agriculture, as now carried on in connection with the science garden, a greenhouse is necessary, and an appropriation for this purpose is needed this winter.

Additional land will be necessary for one of the new dormitories, as the present Normal Hall must remain in use until the new buildings are ready for occupancy. An option has been secured on an adjoining lot particularly well situated for this purpose.

The plans include a small building for the work in manual arts, which will occupy a portion of the present site of Normal Hall.

Statistics.

The statistics of the school for the year ending Aug. 31, 1909, are as follows: —

1. Number of students for the year, 260, — 31 men, 229 women; number in the entering class, 122, — 13 men, 109 women; number of

graduates for the year, 87, — 6 men, 81 women; number receiving certificates for special courses, 9, — 1 man, 8 women.

2. Whole number of students who have been members of the school, 5,865, — 1,383 men, 4,482 women; number who have received certificates or diplomas, 4,018, — 927 men, 3,091 women; of whom 346 have graduated from the four years' course, — 177 men, 169 women.

3. The residences of the 260 members of the school for this year were as follows: Plymouth County, 88, — Brockton, 19; Bridgewater, 18; Rockland, 9; Whitman, 6; Abington, 5; Hingham, 5; Marion, 4; Kingston, 3; Wareham, 3; Halifax, 2; Hanover, 2; Marshfield, 2; Plymouth, 2; West Bridgewater, 2; East Bridgewater, Hull, Mattapoisett, Middleborough, Norwell and Scituate, 1 each; Norfolk County, 46, — Quincy, 20; Weymouth, 8; Hyde Park, 3; Walpole, 3; Braintree, 2; Norwood, 2; Wrentham, 2; Cohasset, Holbrook, Milton, Randolph, Sharon and Stoughton, 1 each; Bristol County, 43, — Fall River, 17; Taunton, 13; Easton, 3; New Bedford, 2; Attleborough, Berkley, Dighton, Fairhaven, Freetown, Raynham, Rehoboth and Swansea, 1 each; Middlesex County, 19, — Somerville, 3; Winchester, 3; Waltham, 2; Belmont, Carlisle, Framingham, Lowell, Malden, Melrose, Newton, Pepperell, Reading, Stoneham and Woburn, 1 each; Essex County, 14, — Haverhill, 10; Andover, 2; Georgetown, 1; Gloucester, 1; Suffolk County, 11, — Boston, 10; Winthrop, 1; Barnstable County, 7, — Provincetown, 3; Brewster, 2; Dennis, 1; Harwich, 1; Hampshire County, 6, — Easthampton, 3; Huntington, Northampton and Ware, 1 each; Hampden County, 5, — Palmer, 3; Springfield, 2; Worcester County, 4, — North Brookfield, 2; Worcester, 2; Dukes County, 3, — Oak Bluffs, 2; Edgartown, 1; Franklin County, 2, — Ashfield, 1; New Salem, 1; Berkshire County, 1, from the town of Pittsfield; Nantucket, 1; the State of Maine, 4; Vermont, 3; Connecticut, 1; Mexico, 1; Peru, 1; total from Massachusetts, 250, all of the counties and 82 towns being represented; from other States and countries, 10.

4. The distribution of the students for the year among the different courses was as follows: special courses, 18, — 5 men and 13 women; regular four years' course, 57, — 26 men, 31 women; intermediate, or three years' course, 39 women; kindergarten-primary course, 12 women; elementary course, 134 women.

5. The average age of those admitted was 19 years, 6 months; that of special students, 25 years, 4 months; that of students entering upon regular courses, 18 years, 8 months.

6. Of the 122 admitted, 6 came from colleges, 4 from normal and training schools, and 112 from high schools and academies; 10 had taught previous to coming.

7. The occupations of the fathers of those admitted were given as follows: mechanics, 36; farmers, 11; merchants and dealers, 13; bookkeepers and clerks, 7; manufacturers, 5; engineers and firemen, 5;

superintendents and foremen, 5; gardeners, 5; insurance agents, 4; employed in government service, 4; clergymen, 2; teachers, 2; physicians, 2; printers, 2; drivers, 2; editor, lawyer, botanist, salesman, barber, undertaker, publisher, stereotyper, janitor, livery stable keeper, mechanical engineer, mariner, 1 each; deceased or occupations not given, 5.

ARTHUR C. BOYDEN,
Principal.

STATE NORMAL SCHOOL, FITCHBURG.

JOHN G. THOMPSON, PRINCIPAL.

FACULTY.

JOHN G. THOMPSON,	Pedagogy.
PRESTON SMITH,	Natural science and school hygiene.
EDWIN A. KIRKPATRICK,	Psychology, child study and school laws.
ANNETTE J. WARNER,	Drawing.
FLORA E. KENDALL,	English.
ABBY P. CHURCHILL,	Nature study and biology.
ELIZABETH D. PERRY,	Music.
NELLIE B. ALLEN,	Geography and geology.
FLORENCE M. MILLER,	History.
LILLIAN A. PHILLIPS,	Manual training.
JANE E. MITCHELL,	Physical culture.
WILLIS B. ANTHONY,	Manual training.
MARY L. CARPENTER,	Household arts.
CHARLES S. ALEXANDER,	Mathematics, and principal of model and practice schools.
MATILDA B. DOLAND,	Supervisor, and principal at Day Street school.
MERCIE A. ALLEN,	Supervisor, and principal at Edgerly school.
MARGARET M. SLATTERY,	Supervisor.
MATTIE A. COLE,	Supervisor.
MARY MCCONNELL,	Supervisor.
IDA M. AUSTIN,	Supervisor.
L. FRANCES JONES,	Supervisor.
CAROLINE G. HAGAR,	Supervisor.
SADIE E. LAMPREY,	Supervisor, and principal at Highland Avenue school.
FLORENCE E. SCOTT,	Principal of kindergarten.
BERTHA M. MCGEE,	Assistant kindergartner.
MAUD A. GOODFELLOW,	Library economy, librarian and clerk.

GROWTH.

The growth of the school in numbers has continued, 230 students being registered on Dec. 1, 1909, against 191 for the preceding year. The increase from 141 in 1906 to 230 in 1909 has brought with it many difficult problems. To meet the one of rooms and board, temporary arrangements have been made, but it has not been possible to care for all who applied for admission. Several withdrew their applications when they found they could not live in the dormitory connected with the school. Each year for the last five years the visitors of the Fitchburg Normal School in their annual report have called attention to the need of more rooms for students. There are now enough rooming outside the school dormitory to fill another such building. If the continued growth of the school in numbers is desired, an additional dormitory should be provided as soon as possible. If granted by the Legislature of 1910, it would not be ready for occupancy before September, 1912.

The problem of more room for normal classes was to be solved by removing the practice classes from the normal school building into the new manual arts building. The latter, however, is not ready as expected, and both the normal students and the pupils of the Manual Arts School are at work in Normal Hall. Early in 1910 the new building will be ready and the crowded condition will be relieved.

Manual Arts School.

One hundred and thirty pupils from grades 7 and 8, nearly evenly divided between the sexes, were admitted to the Manual Arts School. The following is a statement of some phases of the work of the school as now in operation: —

Aim.

To give to pupils, especially to those not expecting to enter the high school, a more practical education during the last two years of the grammar school.

Some Features of the Tentative Plan.

A longer school day, of six hours.

Half time spent upon constructive work.

Nothing made except in response to a need, — school, home or individual need.

All articles made, all work done, must meet the need adequately, — beauty of detail and finish subordinate. Illustration: boys have laid the top floor on one of their shops, and have nearly completed their work benches. The study of structural design and the making of working drawings preceded the construction. Girls have made needle books, cooking aprons, etc., and are now at work on gymnasium suits. Cooked food will be used at the boarding hall, etc.

A course in history of American industry, civics and elementary economics.

A course in industrial and commercial geography, growth (or production), transportation, and manufacture of cotton, wool, iron, etc., with visits to local industries.

A course in personal hygiene, particularly of the adolescent period.

Typewriters used for greater part of spelling, language, etc., instead of pen or pencil.

"Welfare work," — visitation of pupils' homes; consideration with individual pupils of their particular needs, ideals, etc.; supervision of work and recreation out of school hours, etc.

This plan attempts to bring, with other things, to the present city child some of the advantages of the old New England farm life. Incidentally, as formerly on the farm, he may touch upon a good many trades, and this may help guide him in the choice of his life work.

The Manual Arts School has been made a part of the model and practice schools, of which Charles S. Alexander is the principal. Willis B. Anthony was elected teacher of manual training, and Mary L. Carpenter teacher of household arts. Apart from these additions, the faculty remained as last year until Dec. 1, 1909, when Miss Jane E. Mitchell resigned her position as director of physical culture.

Needs of the School.

Some of the needs of the school in material equipment are the following, considered in order of urgency and of importance: —

1. An additional dormitory, to which reference has been made.

2. Land for school gardens and for a playground. When the normal school was established, in 1895, there was little or no demand for gardening as a part of the public school course, and no land was provided for that purpose. The lot which was purchased as a location for the normal school contains about 5½ acres. This was sufficient for the buildings and for an excellent playground until the Manual Arts School was located upon what

had served as a playground for the boys. For several years land has been hired for school gardens, and this year a plot large enough to serve both for gardens and for a playground has been secured. There is little likelihood that this arrangement can be continued. No school for the training of teachers for the grades in the public schools to-day is considered fully equipped that is without land for gardening and for play.

3. A central heating plant and coal pockets. Three of the four buildings upon the lot are now heated from the battery of boilers in the normal building. This has never been entirely satisfactory, for when the normal building was planned and erected there was no thought of placing a central heating plant in it. There is only space for storing about fifty tons of coal, so that fuel must be purchased from local dealers, to be delivered as ordered.

An outside central heating plant would remove from the building a very active distributor of dirt and a source (probably very slight, however) of danger; it would also in the long run be a paying investment.

4. A fence, enclosing the grounds. For fifteen years the school grounds have been used more or less freely by the public. When there was no boarding hall connected with the school there was little objection to this; but from year to year the objectionable features have increased, until it has become necessary to keep a watchman on the grounds Sundays and evenings. The grounds should be reserved for the use of the students, and should not be open at all times to the general public. This will never be possible until they are enclosed.

Lectures and Concerts.

The following lectures and concerts (most of which have been held at the Fitchburg Normal School) have been open to all students at the school: —

Lecture, Theatre-going Habits of Children, — Samuel P. Capen, Clark College.
Illustrated Lecture on Greek Art, — Annette J. Warner.
Illustrated Lecture on Birds, — Rev. Herbert K. Job.
Lecture, Darwin, — Rev. Frederick J. Gauld.

Concert, — Corinthian Male Quartette.

Concert, — Fitchburg Choral Union.

Lecture, Out of the Beaten Track in Europe, — Supt. I. Freeman Hall.

Three concerts, — Kneisel Quartette.

Lecture, Drawing, — Frederic L. Burnham, State agent for the promotion of manual arts.

Lecture, The Canal Zone, — Helen Varick Boswell, New York.

Lecture, The Peace Movement, — Lucia Ames Mead, Boston.

Lecture, The World's Work, — Hon. George H. Martin, Boston.

Lecture, Agricultural and Industrial Education, — Prof. Floyd B. Jenks, Amherst, Mass.

Lecture, Teachers' Ideals, — Dr. John M. Thomas, president of Middlebury College.

Concert, — Whitney Brothers' Quartette.

Concert, — The Dunbar Company.

Lecture, — Capt. Richard Pearson Hobson.

Concert, — Schuecker Trio, from Boston Symphony Orchestra, Miss Westgate, soloist.

Lecture, Education for Efficiency, — Dr. Frederick W. Hamilton, president of Tufts College.

Lecture, Concerning the Education of Women, — Sarah Louise Arnold, dean of Simmons College.

Lecture, Education and Religion, — Dr. Marion L. Burton, president of Smith College.

Lecture-recital, King Lear, — Henry Lawrence Southwick.

Lecture-recital, Hamlet, — Henry Lawrence Southwick.

Lecture-recital, The Tempest, — Henry Lawrence Southwick.

Lecture-recital, David Copperfield, — Walter Bradley Tripp.

Lecture-recital, As You Like It, — Maud Gatchell Hicks.

Concert,[1] — Chamber Music for Wind Instruments, by the Longy Club, Boston.

Graduation Address, — Hon. J. D. Miller.

STATISTICS.

The statistics for the year ending Aug. 31, 1909, are as follows: —

1. Number of students for the year, 196. Number in the entering class, 97. Number of graduates for the year, 73 women; 56 from the elementary or two years' course, 6 from the kindergarten course, and 11 from the advanced course. Number receiving certificates for special courses, 9.

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[1] This concert was added to the course by the kindness of Mr. Herbert I. Wallace, Fitchburg.

2. Whole number of students admitted since the opening of the school (September, 1895) 954, — 943 women, 11 men (this number includes the class admitted in the fall of 1909, but does not include the 162 teachers who have taken special afternoon work at different times).

3. Number of States represented in the membership of the school for this year, 4.

4. Number of counties in Massachusetts represented, 8.

5. Number of towns in Massachusetts represented, 59.

6. Average age of entering class, 20.1.

7. Number who have had experience as teachers, 12.

8. Occupation of fathers: farmers, 13; laborers, 10; retired, 9; mechanics, 6; engineers, 5; janitors, 4; merchants, 4; insurance agents, 3; real estate agents, 2; doctors, 2; clergymen, 2; machinists, 2; carpenters, 2; chair makers, 2; paper maker, 1; lumber dealer, 1; mason, 1; expressman, 1; milk dealer, 1; contractor, 1; bookkeeper, 1; railroad man, 1; caterer, 1; nurse, 1; granite dealer, 1; designer, 1; house painter, 1; box manufacturer, 1; dentist, 1; undertaker, 1; superintendent of schools, 1; sea captain, 1; deceased, 13.

9. Number of students in attendance, Dec. 1, 1909, 230.

JOHN G. THOMPSON,
Principal.

STATE NORMAL SCHOOL, FRAMINGHAM.

HENRY WHITTEMORE, Principal.

Instructors in the Normal School.

Henry Whittemore,	School organization and government, pedagogy.
Amelia Davis,	Mathematics and astronomy.
Frederic W. Howe,	Chemistry, physics, dietetics, household sanitation.
Avery E. Lambert,	Biology, nature study, bacteriology, physiology.
Jessica Haviland,	Assistant in sciences.
Helen E. Young,	Assistant in cookery and chemistry.
Louisa A. Nicholass,	Household arts.
Annie B. Penniman,	Household arts, sewing, laundry basketry.
Lillian A. Ordway,	Geography, psychology of childhood, Latin.
Mary C. Moore,	English language, literature.
Anna L. Moore,	History, history of education, civil polity.
Mary H. Stevens,	French, English.
Jane E. Ireson,	Reading, elocution, gymnastics.
Mary Bennett,[1]	Physical culture, physiology.
Marion E. Baxter,[2]	Physical culture, physiology.
Frederic W. Archibald,	Music.
Edmund Ketchum,	Drawing.
Frederick W. Ried,	Manual training.
Charles E. Doner,	Penmanship.

Instructors in the Practice School.

Antoinette Roof,	Principal.
Susan M. Emerson,	Ninth grade.
Anna M. Rochefort,	Eighth grade.
Louie G. Ramsdell,	Seventh grade.
Nellie A. Dale,	Sixth grade.
Gertrude K. Pratt,	Fifth grade.
Alice V. Winslow,	Fourth grade.
Cassie M. Whitman,	Third grade.
Elizabeth Malloy,	Second grade.
Maude A. Doolittle,	First grade.
Phebe M. Beard,[1]	Kindergarten.
S. Alice Appleton,[3]	Kindergarten.

The Needs of the School.

The needs of the school are manifested in two particular and important directions: in the first place, by the very pressing need of more room for the practice department; and, in the second place, by the necessity for increased dormitory accommodations.

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[1] On leave of absence for one year.

[2] Substitute for Miss Bennett.

[3] Substitute for Miss Beard.

More Room for the Practice Department.

During the last year the school committee and other representative citizens, as a committee for the town, and a committee from the State Board of Education, carefully considered the subject of better accommodations for the schools in that part of the town in which the normal school is situated. This joint committee came to an agreement, substantially the same as the one under which both parties had acted for a term of years, with this important addition, namely, the Board of Education agreed upon its part to ask the Legislature for an appropriation to erect a school building upon a certain plot of ground belonging to the town, known as " the old high school lot." This agreement was ratified by the town at a meeting held March 10, 1909.

The need for enlarged and better accommodations for the practice school is not of recent origin. Secretary Hill, in his report for 1900–01, called the attention of the Board of Education to the then existing conditions, and said: " Provision for practice in the Framingham Normal School, though not so limited as at Salem, is less generous than in the remaining schools." This statement was made when there were less than 200 children assigned to the State by the town for a practice school. In October, 1905, the principal of the school again brought this subject to the attention of the Board, because conditions had been growing worse on account of the crowded condition of the schools, and because the facilities for observation and teaching had become inadequate, owing to the increase in the number of students. From 1905 to the present time this important matter has been a subject of thoughtful consideration.

Briefly stated, there are three serious faults with the present conditions: First, the schools, in two instances at least, are maintained in rooms absolutely unfit as far as space, light and ventilation are concerned; second, the schools are now in three separate buildings, the sanitary arrangements connected with one of them being the same as they were when it was erected, many years ago; third, the schools are so cramped for accommodations that in one room one grade comes in the morning and one in the afternoon. Under these conditions, the schools are not representative schools, such as a State normal school is supposed to maintain.

In the presentation of the subject thus far, attention has been directed mainly to the needs of the practice school as a system of schools. A word must be said on the other side, — that is, the effect of these conditions upon the work of the normal school as such. These crowded conditions have interfered seriously with the opportunity of the pupil-teacher for observation and practice; and the taking of rooms by the practice department which should be given up to the use of the classes of the normal school has hindered the work of the school. There is needed a new building for the use of the practice department, that additional room may be had for the classes of the normal school.

The Need of Increased Dormitory Facilities.

At the present time there are nearly 50 students who are living in the village, wholly or in part. Meals are furnished to many of this number in one of the dormitories. For a number of years the school has lost students because of the inability to give them homes in one of the dormitories. With the financial betterment of the constituency of the school, there is a growing desire of parents to have their girls live at the school and have the advantages of a well-regulated dormitory life.

There are two dormitories connected with the school, one housing about 70 pupils, the other about 45. The larger was built, as it stands at the present time, in 1887; the smaller, in 1870. Both are made of wood. The older one is fast getting into a condition where it will be necessary to make very expensive repairs. What is needed is a brick dormitory which will replace the older building, — one that will give accommodations to 80 students or more.

It is not conducive to the health, happiness or the moral and intellectual welfare of students to have them live outside of the dormitories, scattered here and there.

THE HOUSEHOLD ARTS DEPARTMENT.

This department came to the school from Boston, September, 1898. There came into the school with it 7 students as seniors and 10 more entered as juniors, making 17 in all. The number has increased until at the present time there are registered 107. Of this number, 56 entered in September, 1909. The original equipment of tables and materials for the classes in cookery was for 40 students. The chemical laboratories were constructed practically for the same number, and the other courses were furnished upon the same scale. Briefly stated, the general equipment is not at all equal to the increased burden put upon it by the very large enrollment. Under such conditions, the character of the instruction cannot be maintained at its present high standard. The work done in this department must be of the best. If it is not, its graduates will find no places open for them, for they must compete with graduates from the best institutions of the same kind in all parts of the country.

The Needs of the Department of Household Arts.

If the number in the department is to be even as large as at the present time, it must have more instructors, increased accommodations for classes in all lines of work, and a boarding hall which shall not be merely a dormitory, but a laboratory for cookery and institutional management.

Changes in the Faculty.

Miss Cassie M. Whitman of Marlborough, who graduated from the regular department of the school in 1905, and who was teaching in Springfield at the time of her election, was selected to take charge of the third grade in the practice department. Miss Lucile G. French, who has been assistant instructor of sciences, resigned to enter Teachers College, New York. She will have, in addition to her duties as a student, the position as an instructor in domestic science. Miss Jessica Haviland, who graduated in June, 1909, was elected to take her place. Owing to the crowded condition of the department of Household Arts, Miss Helen E. Young, who graduated in June, 1909, was elected as an assistant in chemistry and cookery. Mr. F. W. Ried of Boston was elected instructor of manual training, and Mr. C. E. Doner of Beverly instructor in penmanship.

Mrs. J. H. Hurd, who had been bookkeeper and treasurer of the school for nearly eighteen years, resigned in April, 1909. Mrs. Hurd's work during these years was characterized by exactness, carefulness, and by a high degree of faithfulness. At the end of the year Miss K. Agnes Shea, who had filled the position as clerk, resigned. Mrs. Eva E. Hemenway of Framingham was chosen to fill the consolidated position of bookkeeper and clerk.

ENROLLMENT.

The enrollment for 1909–10 is the largest in the history of the school, — 268 students. It is larger than was expected, because so many of the applicants had to be informed that there was not a possibility of being accommodated in either of the dormitories.

LECTURES AND ENTERTAINMENTS.

Mrs. Kate F. Conley of Boston gave a lecture on "Molière," Mr. G. G. Dwyer of New York City gave a talk upon the "Education of the Blind," Dr. Robert W. Lovett of Boston spoke to the school upon "The Care of the Feet," Mrs. R. C. Sargent of Medford gave, as a reading, "The Servant in the House." Mrs. John T. Prince of Newton brought to the attention of the graduating class the work done in the School for Saleswomen of Boston. Mrs. Lucia Ames Mead of Boston addressed the school upon "Patriotism and Internationalism." Prof. G. Howard Maynadier of Harvard gave a lecture upon "Spenser the Representative Poet of the Elizabethan Era." Mrs. Christabel W. Kidder of Fitchburg gave a recital from "As You Like It." The Glee Club gave a concert. On class day the exercises were folk dancing and the presentation of scenes from "As You Like It," and the planting of an ivy for May Hall.

GIFTS.

The class of 1909 gave a large sum of money, to which they intend to add as much more, for the purpose of placing a boulder upon the grounds, on which shall be placed a bronze tablet bearing this inscription: "State Normal School, Framingham. The first State Normal School in America."

Mrs. Charles Potter of South Framingham presented the school with a straw splitter, to further illustrate one of the industrial exhibits.

STATISTICS.

1. Number of pupils admitted September, 1908, 100. Number who graduated June, 1909, 96; of this number, 70 graduated from the regular two years' course, and 26 from the department of household arts. Whole number of pupils for the year 1908–09, 262. They are divided as follows: seniors, 125; middle juniors household arts, 30; juniors, 107; total, 262.

2. Average age of pupils admitted September, 1908, 18 years, 7 months.

3. Occupations of parents: merchants, 14; mechanics, 14; farmers, 9; shoemakers, 9; manufacturers, 8; superintendents, 4; engineers, 4; clerks, 3; shippers, 2; janitors, 2; clergymen, 2; gardeners, 2; harness makers, 2; sea captains, 2; real estate, 2; motorman, fireman, conductor, appraiser, printer, photographer, secretary of school, expressman, theatrical agent, draftsman, teacher, chief of police, bookkeeper, postmaster, umpire, agent, travelling salesman, dean of medical college, mail carrier, superintendent of schools, retired, 1 each.

4. Residences of 100 pupils admitted September, 1908: Massachusetts, by counties: Middlesex, 60; Norfolk, 7; Bristol, 6; Plymouth, 4; Worcester, 12; Suffolk, 2; Dukes, 2; Hampshire, 1; Hampden, 1; Essex, 1; total, 96. From other States: Connecticut, 2; New Hampshire, 1; Nebraska, 1; total, 4. From Massachusetts, 96; from other States, 4; total, 100.

HENRY WHITTEMORE,
Principal.

STATE NORMAL SCHOOL, HYANNIS.

W. A. BALDWIN, Principal.

Instructors in the Normal School, Regular Session.

W. A. Baldwin,	Psychology, pedagogy, history of education.
Annie S. Crowell,	Physical training, physiology, advanced geometry.
Minerva A. Laing,	Chemistry, geology, minerals, drawing.
Hannah M. Harris,	English, history.
Julia A. Haynes,	Biology, mathematics.
Charles H. Morrill,	Geography, manual training, physics.
Edmund F. Sawyer,	Vocal music.

Instructors in the Training School.

Andrew G. Johnson,	Principal, eighth and ninth grades.
Annie H. Chadwick,	Sixth and seventh grades.
Louise K. Morss,	Fifth and sixth grades.
Mary Gregg,	Fourth grade.
Sarah S. Ford,	Second and third grades.
Ida E. Finley,	First grade.

Instructors in the Normal School, Summer Session.

Edmund F. Sawyer,	Vocal music.
John J. Findlay,	Pedagogy.
Elizabeth H. Spalding,	English.
Charles P. Sinnott,	Geography.
Gertrude E. Bigelow,	Arithmetic.
Theodore M. Dillaway,	Drawing.
Alice S. Crowell,	Hygiene and physical training, with physiology as a basis.
John C. Hockenberry,	Psychology.
Bertha M. Brown,	Plants and school garden.
Hannah M. Harris,	United States history.
Mabel Kimball Baker,	Industrial work.
Clarence F. Carroll,	Supervision.
Kate Stevens,	Supervision.
Colin A. Scott,	Supervision.

The Normal School and the Evolution of Educational Ideas.

A normal school is in danger of making either of two mistakes, viz.: it may set itself up as an authority in method and deal largely with abstract pedagogical principles, or it may go to the other extreme and drill its students in just those things which they are to teach in the grades.

At Hyannis we have considered the needs of the public schools as now organized, but we have tried also to keep in touch with the needs of the times and the evolution of educational thought, and even to have some small part in influencing the direction of such evolution.

In the present report I desire to show briefly the development of the school along several lines, and to indicate the next steps for which we seem to be ready.

Industrial Education at the Hyannis Normal School.

In view of recent movements in education in Massachusetts and especially because of the important place which industrial education is having in such movement, it seems appropriate to give a brief statement of the inception and development of work at Hyannis.

Its Inauguration.

In the spring of 1901 Hyannis started its first school garden. This work was given to the eighth grade of the training school, and from the first was closely correlated with the regular school work; in fact, the main reason for its introduction was to furnish a basis for the other studies, thus relieving the too artificial conditions of the school, and making them more practical and more like conditions in the world outside of the school. At that time the term industrial education was not much used. It was substituted by us for the term manual training because we desired to emphasize the work side, and to develop that side of the child character which can be developed only through physical labor, producing practical results. At first we were often accused of utilitarianism and even of commercialism; but we moved steadily forward, adding one form after another of industrial work, as local conditions seemed to demand.

The main purposes of our industrial training have been three, viz.: —

1. To provide an environment for the child full of real problems with their natural associations or relations, out of which he will get (*a*) ideas, — training on the intellectual side, learning laws of the physical and spiritual world; (*b*) attitude, — training on the feeling side, sympathy with other workers; (*c*) physical adjustment and strength.

2. To provide centers of correlation with regular subjects, and so reasons for studying them.

3. To help to connect the school with the home and the community, — to help unify the life of the child.

As to the form of work, we have tried to let the present needs of the pupils guide us, feeling that if we continued to minister to the needs of succeeding days the work would grow and broaden in a natural, wholesome way. Our motto has been, "A live boy in a live school;" and our educational motto, "*To encourage such activities each day as the best present development of the child demands.*"

Among the various forms of industrial education which we have used are the following: building tool house, manufacturing frames for foot stools, etc., raffia and reed baskets, cane seating, hammock making, cooking, crocheting, knitting, sewing, sweeping, dusting and other housekeeping activities, gardening, making gifts for friends, printing and boat building.

The above list will show that we do not believe in anything like the trade school idea for children under fourteen years of age, nor indeed in regulation manual school training with set models. There should be a great variety from which to choose, and much opportunity for individual initiative. Activities like sewing and cooking are certain to be in demand. Many others may be appropriate, because they seem to meet a great need, for one year and not again for a series of years. Much often depends upon the teacher's taste, as one teacher will arouse enthusiasm over one form of work and another over something quite different. There should, then, be great opportunity for modification and readjustment in the course of study.

In the introduction of this work we have found two obstacles to be overcome, viz.: —

1. The conception of education on the part of teachers and parents needed readjusting.

2. Teachers were not trained for this work.

From the first the children have taken kindly to the work, and they have been the chief factor in changing the conceptions of teachers and parents. The teachers of our training school were much helped by the discussions in our faculty meetings.

It has seemed desirable, when local conditions permitted, to introduce such work and in such a manner as might be available for any public school in the State, and nothing which has been introduced in Hyannis might not be introduced in any such school.

In the first place, then, as to teachers. The work has been done by the regular teacher of each room, and if this work is to become universal, it must be done by the regular teachers and not by special teachers.

One teacher who had some interest in domestic lines gradually worked out simple, practical courses in cooking and sewing. Another teacher was sent to New York for a few lessons in basketry and weaving. Each teacher in the school learned some practical things which she could herself teach to her children, or which she could teach to some other teacher. Several learned cane seating, others learned book binding, and one was able to teach printing.

At first no work was done in our normal school to correspond with this industrial work in our training school, and our normal students gained only so much of the work as could be gained incidentally from the children in the training school. They did, however, get considerable of the theory of the subject in connection with their study of pedagogy and history of education, and a few of our graduates began to introduce some weaving and basketry or hammock making into their schools. Gradually the wood work in the normal school was made more practical; courses in reed and raffia work were introduced in both the summer and winter sessions. A course in the theory of industrial work was introduced; school garden work became a part of the course in biology; a custom was inaugurated of allowing each student to have a part in the care of the school building.

The number of supervisors of drawing and manual training to take these courses in our summer session has continually increased. The demand for our regular graduates who will introduce the Hyannis work has been increasingly large. The request has just come to us from superintendents of schools that we offer regular courses in sewing and cooking in connection with our summer session. It seems only reasonable that we should meet such demands, which we have helped to create, and we are asking for an increase in our appropriation for the coming year to cover the expense of a teacher of sewing and cooking for both the winter and summer sessions.

Educational Problems needing Attention.

In looking out over the educational field and considering what are the greatest needs of public school education to which the normal school may hope to minister, I have for some time been impressed with three, viz.: —

1. The country schools need to be improved.
2. The teachers of our high schools need to be trained.
3. All of our schools need to have the work so readjusted that it shall have as its basis the physical activities of the children.

To the third of these we have for years given much attention. What has been done and what should next be done along this line has been briefly discussed.

The problem of the country school calls loudly for solution. Great readjustments seem desirable and possible. Many country people are calling for teachers so trained as to be able to point the way in such readjustment. Some normal school graduates do now teach for a short time in country schools, but for the most part they are not the best teachers; they are often city bred, knowing nothing of country needs; and in every case no special preparation has been given to fit them to teach in country schools. It seems to me desirable that one or two of the normal schools of this State shall offer a special one year's course to prepare country young women and young men to teach in country schools. We may well take suggestions from some western normal schools in this matter.

The demand for properly trained teachers for our high schools is becoming very urgent. It seems entirely appropriate that the State Board of Education should, through one or more of its normal schools, attack this problem. I believe that the Hyannis Normal School is particularly well fitted to undertake the work of preparing teachers for country high schools. To this end the school would need to have as a part of its training school a high school department. Such a high school ought to serve two purposes, viz.: —

1. It should be organized in accordance with the best modern educational thought, and so furnish a model for country high schools of the State.

2. It should furnish a training school in which college graduates could teach under expert supervision, and in an atmosphere charged with the spirit of the pedagogy which they are being taught in the lecture room.

The Relation of the Hyannis Normal School to the Schools of the Cape.

Slowly, almost imperceptibly, but surely, the influence of the normal school is being extended throughout the Cape. This is becoming evident in many ways.

1. Of the six superintendents of schools in Barnstable County, four have been students at the summer school and two are graduates of the school. All these superintendents are in sympathy with the work of the school, and glad to secure its graduates. That these superintendents are a progressive set of men is proved by the fact that they meet four or five times a year for discussion of their professional problems.

2. Hyannis is looked upon as the educational center of the Cape, and here the annual County Teachers' Association and the teachers' institutes are held. Teachers visit the training school for suggestions.

Industrial education is being quietly introduced into many schools which are under the charge of Hyannis graduates. Such work is putting a new spirit into these schools, and is being well received.

The number of pupils from the Cape is larger than ever before, being, in proportion to the population represented, about five times as great as is the relative proportion of normal school pupils to the population throughout the State.

The high schools of the Cape are visited each June by the principal or some other representative of the normal school, for the purpose of acquainting the high school graduates with the advantages offered by the normal school.

Members of the faculty go out from time to time to give addresses in different parts of the Cape, and arrangements are being made whereby a stereopticon lecture may be furnished to any high school on the Cape with very slight expense to the locality.

The relations between the normal school and the public schools of the Cape are continually growing more cordial, and the prospects for mutual helpfulness seem correspondingly bright.

Statistics for 1908–09.

Total number of students, regular session,	49
Total number of students, summer session,	205
Number of college graduates, summer session,	21
Number of normal school graduates, summer session,	46
Number of graduates, regular session,	17
Number of graduates, summer session,	10
Number of superintendents of schools in attendance,	12

W. A. BALDWIN,
Principal.

STATE NORMAL SCHOOL, LOWELL.

CYRUS A. DURGIN, Principal.

Instructors in the Normal School.

Cyrus A. Durgin,	Psychology, pedagogy.
Hugh J. Molloy,	Mathematics, physics.
Mabel Hill,	History, civil government and history of education.
Anna W. Devereaux,	Kindergarten theory and practice.
Sarah C. Whelton,	Music.
Clarence M. Weed,	Nature study, gardening, chemistry.
Nancy M. Bragg,	Geography, manual training, chemistry.
Josephine W. Chute,	Drawing, manual training.
Mirion H. Milner,	Reading, physiology, physical education.
Charles E. Doner,	Penmanship.
Sarah E. Lovell,	English grammar, rhetoric, literature.
Ethel E. Kimball,	Secretary and librarian.

Bartlett Training School, Lowell, Mass.

Herbert D. Bixby,	Principal.
Belle A. Prescott,	Ninth grade, reading, supervisor of practice.
Charlotte M. Murkland,	Eighth grade, grammar, supervisor of practice.
Blanche A. Cheney,	Eighth grade, history, supervisor of practice.
Amy L. Tucke,	Seventh grade, music, number, supervisor of practice.
Frances Clark,	Seventh grade, geography, supervisor of practice.
——— ———	Permanent substitute for supervisors.
Belle F. Batchelder,	Sixth grade.
Mary E. Walsh,	Sixth grade.
Maria W. Roberts,	Fifth grade.
Katherine F. Farley,	Fifth grade.
Alice D. Sunbury,	Fourth grade.
Caroline H. McGarvey,	Fourth grade.
Bridget K. Smith,	Third grade.
Sara E. Ames,	Second grade.
A. Gertrude Stiles,	Second grade.
Essie E. Roche,	First grade.
E. Belle Perham,	First grade.
Helen W. Noyes,	Kindergarten, Principal.
Edith A. Andrews,	Kindergarten, Assistant.

Gilbert E. Hood Training School, Lawrence, Mass.

Leila M. Lamprey,	Principal.
Ella F. Eastman,	Fifth and sixth grades.
Annie L. O'Connor,	Third and fourth grades.
Emma J. Greenwood,	First and second grades.
Mary E. Mahoney,	Music.
Annie T. McCarthy,	Drawing.
Nellie S. Winchester,	Seventh grade.

H. Frances McDonnell,	Sixth grade.
Mary A. Mahoney,	Sixth grade.
Grace I. Conlin,	Sixth grade.
Mabel L. Mullen,	Fifth grade.
Laura K. Prescott,	Fourth grade.
E. Mabel Andrews,	Fourth grade.
Ellen C. Tobin,	Third grade.
Ethel C. Ramsey,	Third grade.
Ada B. Locke,	First grade.

North Tewksbury Training School.

Tirzah S. Morse,	Principal.

The Faculty.

During the year several changes have taken place in the faculty of the school. Miss Mirion H. Milner has been elected to succeed Miss Mary Hussey as instructor in physiology, reading and physical training. Miss Milner comes from the Lowell high school, with a splendid record for efficiency in her chosen work. Miss Sarah E. Lovell of the Brockton high school has been chosen to succeed Miss Mabel C. Bragg as instructor in English. Miss Lovell is a young woman of scholarly attainments, and has had a large experience in English work. In September Miss Margaret Canfield, our efficient secretary and librarian, resigned, and Miss Ethel E. Kimball, for several years permanent substitute at the Bartlett Training School, has been appointed in her place. No successor to Miss Kimball has been elected as yet. The election of Mr. Charles E. Doner of Beverly as instructor in penmanship has done much for the general efficiency of the school. Mr. Doner carries on the same work in the normal schools at Bridgewater, Framingham and Salem, and is a teacher of marked ability.

The Course of Instruction.

It is assumed that the business of the normal schools is to prepare young men and young women to be teachers of children in the grades, — that is to say, children up to approximately fourteen years of age. The school at Lowell has made much progress along the lines of work hitherto considered essential for the instruction of such children. Some changes have been made which are expected to secure greater efficiency, both from the academic and from the professional point of view.

The former laboratory course in chemistry — which, while it may have had its academic advantages in the case of a few students, has been hard to reconcile with professional instruction in grade work — has been discontinued, in so far as daily work in the laboratory is concerned, and applied courses in the subject are now given in connection with geography, gardening, physiology, etc. In the event of the establishment of a course in domestic science, much attention will be given to chemistry in that connection.

The course in physics, formerly allied to the chemistry, is now being taught by Mr. Molloy in connection with mathematics, and is receiving rather more time than formerly.

The course in the history of education, hitherto largely biographical, has been made to present more of the philosophical view of the subject.

Instruction in gardening is now confined to the junior year. Great progress has been made in this department, and in every nook and corner of the school, plant life is in evidence.

In the gymnasium, practically all the so-called "heavy" work has been given up, and the class exercises are of a strictly professional character, while much time is being devoted to instruction in games that may be taught to children in the schoolroom, as well as in those that may be of value in the school yard.

In a general way, it may be said that in all departments a strong effort has been made to strengthen and to make more practical and more professional all the work in which the students participate.

But, in order that the school may meet the demands of the times, and that the graduates may be able to take up the work of the modern school, with all that the word implies, new courses must be added to the curriculum. While, in my judgment, any purely vocational training in the grade schools is much to be deplored, nevertheless, throughout the course from the first grade up, many forms of manual training — not specifically vocational, but with a strong bearing upon the vocational — should be introduced, and a large proportion of time given to instruction in them. Whether or not, in the future, the pupils of the grade schools are to be differentiated at some point in the course, that some may attend vocational high schools at a later time, while others may attend the so-called "cultural" high schools, the fact remains that *all* the children in the grades, irrespective of conditions in the past or of plans for the future, need much more of the training for manual facility than they now receive. Hence, in the light of these views, I make the following suggestions with regard to the establishment of additional courses: —

First. — A course in domestic science and household economy should be offered to all the students of the school, and to the girls of the eighth and ninth grades of the training school, — not to be made a professional course, but merely for the immediate value to all who may take it. The equipment for such a course is already nearly complete, and needs the expenditure of but a small sum to make it entirely so. The teacher, only, is wanting. This can be made an extremely strong cultural course, without attempting to produce teachers of the subject.

Second. — A course in manual training, not wholly woodworking, but to include the rudiments of a number of the trades for the boys; this work may be adapted to the requirements of the normal students by the instructor, who should be a man. A parallel course in sewing, for the girls, should have special reference to millinery and dressmaking. In addition, many forms of manual training not included in the above should make a part of the course of instruction for both boys and girls. This course should be given to all the students of the regular two years' course, that they may meet more intelligently the conditions likely to be found in the school work of the near future. I believe that this course should vary much from the lines now commonly followed.

Third. — An amplification of the present course in gardening, by the purchase of available land near the school. Mr. Weed has the course well in hand. The members of the junior class do definite garden work either indoors or out of doors during every week of the school year. They grow flowers and vegetables of many kinds, each pupil having individual responsibility in the care of large numbers of plants. These gardening operations furnish the basis for much work in drawing and English. In the training schools some form of gardening activity is carried on in all the grades throughout the school year. Gardening is carefully related to the development of the pupils, and is the basis of work in other lines. Further progress, however, will require more room and possibly more time.

TRAINING SCHOOLS.

The training schools, the Bartlett in Lowell, the Gilbert E. Hood in Lawrence and the rural school in North Tewksbury, are doing very efficient work with the students, in giving them the rudiments of actual schoolroom experience. The practice period has been lengthened to fifteen weeks.

IMPERATIVE NEEDS.

The wood work on the outside of the normal school building is in very bad condition, and the interior walls need painting sadly. This is one of the finest buildings in Massachusetts, and should not be allowed to run down. Nothing in the way of painting has been done since its completion, in 1897.

STATISTICS.

1. Number of students for year, 175.
2. Number in entering class: junior, 79.
3. Number of graduates for year, 50.
4. Total number of graduates, 653.
5. Whole number of students admitted since opening of school, 1,020.
6. Average age of pupils admitted — 17 years, 8 months.
7. Of the entering class, Middlesex County is represented by 9 towns, Essex County by 5 towns. Lowell furnishes 29 pupils; Lawrence, 27; Haverhill, 7; Methuen, 3; Winchester, 2; Billerica, 2; Chelmsford, 2; Woburn, Tewksbury, Cambridge, Dracut, Ballardvale, Wilmington, North Andover, 1 each.
8. Occupation of pupils' fathers: merchants, 11; machinists, 8; farmers, 4; carpenters, 4; operators, 4; foremen, 5; clerks, 3; policemen, 3; lawyers, 2; butchers, 2; blacksmiths, 2; hatters, 2; managers, 2; teamster, baker, auctioneer, weaver, shoemaker, packer, inspector, watchman, real estate dealer, signal man, wool sorter, traveling salesman, card clothier, leather worker, 1 each; deceased, 13; total, 79.

CYRUS A. DURGIN,
Principal.

STATE NORMAL SCHOOL, NORTH ADAMS.

FRANK FULLER MURDOCK, Principal.

Instructors in the Normal Department.

Frank F. Murdock,	Psychology, pedagogy.
Roland W. Guss,	Natural science.
Archer C. Bowen,	History, geography.
Floyd B. Jenks,	Agriculture.
Arthur W. Trubey,	Industrial training.
Mary A. Pearson,	Drawing, industrial arts.
Rosa E. Searle,	Mathematics, music.
Annie C. Skeele,	Physiology, physical culture.
Mary L. Baright,	English, reading.
Helen Van A. Schuyler,	Domestic arts.
Priscilla Alden,	Drawing, industrial arts.

Mark Hopkins Training School.

Instructors in the Grammar and Primary Department.

Donna D. Couch,	Principal. School organization and management in the normal department.
Amalie Knobel,	Ninth grade.
Margaret Boyd,[1]	Ninth grade.
Addie M. Ayer,	Eighth grade.
Winona A. Weber,[1]	Eighth grade.
Rose G. O'Neill,	Seventh grade.
Florence W. Raguse,[1]	Seventh grade.
E. Idella Haskins,	Sixth grade.
Emily D. Stacy,	Fifth grade.
Margaret R. Gallon,[1]	Fifth grade.
Freelove Clarke,	Fourth grade.
Agnes E. Walker,	Fourth grade.
Susan G. Lombard,	Third grade.
Genevieve M. Chapin,[1]	Third grade.
Emma H. Tingue,	Second grade.
Edith A. Root,	Second grade.
Annie J. Lamphier,	First grade.
Elva L. Brownson,	First grade.
Mae E. McGowan,[1]	First grade.

Instructors in the Kindergarten Department.

Eliza Graeme Graves,	Principal.
Harriet L. Stroud,[1]	Assistant.

Briggsville Rural Training School.

Hannah P. Waterman,	Principal, grammar department.
Nella H. Cole,	Primary department.

Broad Brook Rural Training School.

Bessie W. Nichols,	Principal, grammar department.
Anna R. Campbell,[1]	Primary department.

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[1] These do not train normal students.

DOMINATING INFLUENCES.

The faculty must know the dominating influences in the several communities in which the graduates teach. Otherwise, teachers, courses and methods become conventional, self-centered and impractical. The influences which we undertake to measure by personal inspection are: —

Community. — The geographical environment; distribution of population; prominent vocations; and the prevailing social, vocational, educational and religious standards and practices.

School Equipment. — The geographical location, grounds, buildings, furniture and sanitary conveniences.

School Children. — Their health, dress, social habits; their ages, classes and general abilities; causes of retardation and leaving school; nationality and parental care (State wards).

School Work. — The subjects taught, apparatus and supplies, kinds of industrial work; the relation of school work to home needs, vocational opportunities and higher education.

Teaching. — The proportion of normal and college graduates; the prominent standards and modes of instruction; prevailing elements of weakness; salaries, length of sessions and of the school year; frequency of change of teachers, and the causes.

To inculcate this standard of judgment in the students, each is asked to write a description of the conditions which prevail in her own community, treating each topic with sufficient thoroughness to ensure a just interpretation. Class discussions test accuracy of observation, reasonableness of inference and discretion in statement. Each community is held in mind as a special problem, which any of the students may be called to solve by teaching there. Generalizations are avoided at this stage of the work. Later, students visit strange schools in strange communities, report their observations both orally and in writing, commend excellencies, and propose ways of bettering less satisfactory conditions.

Professional enthusiasm and a deeper insight into education as social service come to us all also from our visitation of institutions whose problems or methods vary considerably from our own. During the current season teachers have visited the Portland, Me., kindergartens; North Bennet Street Industrial School, Boston; Horace Mann, Speyer and Ethical Culture schools, New York; kindergartens and primary schools of Worcester, Clinton and Springfield, Mass.; Perkins Institution, Parental School, Eliot Industrial School, Industrial School for Cripples, Boston; Clarke School for the Deaf, Smith Agricultural School, Northampton; and high schools in Berkshire County. The visiting teachers report to the faculty and students, and all are stimulated and strengthened by this mediate contact with the larger life.

Professional Adaptations.

The subjects of study are arranged in five departments, — English, mathematics, natural science, social science and the arts. Each subject is developed with the students in the order in which a child naturally acquires it, and is organized as a matured body of knowledge only at the end of the series of lessons.

Definite effort is made to derive every subject from and to keep it allied to real life. Geometry is related to construction and decoration in masonry, carpentry, machinery, architecture, etc. Arithmetic is the measurement and computation of industrial and commercial activities experienced or easily understood by the learner. Nearly one hundred sets of industrial problems have been compiled from actual life by students and teachers, each set tracing the business through the various stages of production and sale. English is related not only to literature, but also to mathematics and science, to business and social forms. The problems of gardening, sanitation, heating, ventilating, lighting and manufacturing, arising on our own school grounds, in our buildings and in our homes, are the occasions of instruction in science. The facts resulting from these scientific explanations are organized later, and used to show the content and function of the individual sciences. History and geography trace the progress and interchange of human endeavor, and lead to the practical study of citizenship, government and international relations.

Methods of teaching are taught at the time of considering the progression of the subject and by the teacher of the subject. The test of a method is its conformity with a child's natural mode of acquisition, and the operations of skilled artists and artisans.

Observation trips are made to Windsor Lake and vicinity, the natural bridge, Hoosac River, Greylock Mountain and the west shaft of Hoosac tunnel; to limestone quarries and kilns, the foundry, print works, biscuit factory, gas works and pumping station; to stables, barns, dairies and greenhouses; to lumber yards and mill; to the newspaper printing rooms, banks, department stores and hotels; to the city hall, polling places, police station and fire engine house; to the historical rooms, historic sites and the library.

Practice teaching is begun during the first year by students who have had previous experience, and is continuous for all students during their second year.

Efficiency is the result of well-directed practice under the conditions in which one desires to be efficient. To that end, three training schools have been secured. The city training school (Mark Hopkins school) includes the kindergarten and nine other grades, arranged in eighteen class rooms. A regular teacher is in charge of each class. Six of the teachers do not train students, but are themselves in training for positions of prominence. Their salaries are paid by the city. The training school at Williamstown (Broad Brook school) is in a country village five miles away, and has the first six grades, accommodated in two rooms. The training school at Clarksburg (Briggsville school) is in a mill village three miles away, and has eight grades, accommodated in two rooms. These rural training schools are of the greatest importance because they exemplify the conditions which a large majority of graduates must meet in their first experience.

Extension Work.

The normal school should co-operate practically and continuously with the superintendent; with school committees in their several communities; with its graduates (especially of recent classes) in their individual schools; with the high schools from which normal school students come.

Extension work by this normal school has been carried on during the year much more definitely and practically. Working in co-operation with Mr. Julius E. Warren, agent of the Board of Education, direct assistance has been rendered to forty towns of Berkshire and adjoining counties. In all cases the purpose has been to so improve the teaching, courses and methods that children shall be trained to be efficient. Much effort has been made to secure more and better forms of manual work, with due enlargement into real industrial work. Twenty-two of the thirty-two cities and towns of Berkshire County are now operating courses in one or more of the leading manual arts.

The towns of Clarksburg, Williamstown, Alford, New Ashford, Lanesborough, Peru and Hinsdale have equipped anterooms for woodworking and cooking. Boys have sheathed a ceiling and walls; laid a hard-wood floor; built work benches, closets and tables; set up sinks; made cold frames, racks for garden tools and window boxes; painted inner and outer walls. Cooking, sewing and gardening have been taught in equally practical ways. All of this work is done by the grade teachers. The Thursday Morning Club of Great Barrington is conducting at private expense woodworking, sewing, cooking and housekeeping courses in the ninth grade, with the hope of securing the establishment of industrial training by the town. Stockbridge has made it possible for teachers to do industrial work, and several have made successful beginnings. During the summer, classes in woodworking, sewing and cooking are conducted by citizens free of charge to the children.

Sheffield and New Marlborough have established rural high schools, and are planning to equip rooms for instruction in agriculture, the domestic arts and woodworking. Lenox has provided rooms in the new high school building for the industrial arts. These formerly were taught at private expense, but are now discontinued, awaiting the adoption of the work by the town.

North Adams maintains excellent courses under trained supervisors in woodworking, sewing, cooking, and the care of dining room and chamber. An additional instructor has just been appointed to give special aid in industrial hand work throughout all the primary classes. Recently the desire to extend industrial opportunities to those boys and girls of the upper grammar grades who needed or preferred that form of education eventuated in a request to the Board of Education to aid in establishing such a school, to be used also by the normal school as a school for training teachers.

Dalton has extended courses in woodworking, sewing and cooking, conducted by a trained supervisor, but entirely at private expense.

Adams has provided for woodworking and cooking in the high school building now being completed. In the grades a commendable variety of manual work has been introduced in connection with the drawing.

The laudable efforts of individual teachers in Egremont, Richmond, West Stockbridge, Chester, Middlefield and Washington, the work at the Dickinson high school at Deerfield, and the progress of the Conway high school, cannot be too highly commended.

The method of extension work is: —

1. Inspection of schools and their environment by the agent of the State Board of Education, the principal of the normal school and the local school officials.
2. Study of the town financial report, to determine the use made of State aid.
3. Public meetings with the citizens.
4. " Follow up " aid to superintendents and teachers.
5. Winter vacation study at the normal school by rural teachers.

Opportunities.

Printing. — The printing shop is well equipped for the instruction of six persons, and thus far it has been used by ninth grade boys. They have printed cards, lesson exercises, programs, announcements, mottoes, selections of prose and poetry, and the class paper. The good effects have been the improvement of the technical use of English, the appreciation of the beauties of a printed page, and in a few cases the choice of printing as a vocation.

There have been no funds available for the employment of a proficient instructor, so that the methods of work have suffered. For this reason printing has been discontinued, although in September, when the boys were given a chance to express their interests, all of them asked for printing. The services of a teacher of printing would include other forms of industrial work not yet attempted for lack of an instructor. It is recommended that provision be made for resuming printing under skilled instruction.

Planting Shrubbery. — The grounds about the normal and public school buildings in North Adams are relatively bare. To improve these conditions a series of practical exercises is being arranged, as follows: observation of beautiful grounds; study of pictures and plans; designing improvements of our own grounds; preparing beds and planting shrubs and herbaceous plants. Eventually we expect to produce similar results throughout our territory.

Extension Work. — Teachers in elementary and rural high schools are co-operating by testing new kinds of hand work and new adaptations in the teaching of subjects which have proved successful in the training schools. Graduates are eager to make use of such material, and our helpfulness would be increased many fold if members of the faculty could be sent where needed without expense to themselves. Superintendents welcome this assistance, and are doing all they can to further this work; but the school committees have not the funds both to buy material and pay travelling expenses.

Closely related to this line of advancement is that of observational study of distant schools whose work can be made to advance our own. The policy of sending a principal each year for a month's study at the expense of the State could with equal benefit be applied to other members of the faculties. Many teachers would go willingly for a month or two on a leave of absence without loss of pay. The visitation by members of this faculty at their own expense has enabled us to make notable improvements and prove the soundness of the policy.

Correspondence Courses. — Scarcely more than fifty per cent. of the public school teachers of Massachusetts are graduates of normal schools. Very many graduates of high schools go at once into teaching because of lack of funds to pay the cost of board at the normal schools. The success of the winter vacation courses at this school and of the summer courses at the

Hyannis school, together with the desires and requests expressed by the teachers met during the extension work, are strong evidences of the need of correspondence courses. Experience in correspondence aid to our graduates and to those who have taken shorter courses assures us of the desirability and feasibility of such an extension of professional training. It is certain that such a department would produce the following results: —

1. Many teachers not graduates of a normal school would be induced to undertake some professional progress.
2. Participating untrained teachers would immediately improve their daily teaching.
3. Attendance at normal schools would be increased.
4. Better kinds and modes of work would be brought immediately before the superintendents.
5. Higher educational standards would come to prevail in all communities having such students.
6. School officials would be influenced to a wiser expenditure of State aid.

Candidates would be subject to the requirements for admission now specified for resident students, though teachers unable to meet the test would be given informal aid.

The course leading to a diploma would include all the subjects required of students in full residence.

The work directed by correspondence would include: (1) subjects or phases of subjects which would increase scholarship, and could be organized for purposes of instruction under the guidance of printed directions; (2) teaching ways of studying objects, books, maps, etc., the performing of experiments, conduct of industrial work, testing and correcting daily lessons.

The work in residence would include: (1) correction and improvement of personal qualities, both social and professional; (2) regular instruction in those subjects or phases of subjects which require the presence of an instructor; (3) practice teaching; (4) inculcation of the educational and social standards which institutions are powerful to promote.

Written reports and examinations would be required at definite stages of advancement, the latter to be taken under satisfactory supervision. A rank of seventy per cent. would be required to pass.

Occasional inspection would be made by the visiting member of the faculty. The estimate of the local superintendent would be given due weight in rating the candidate for a diploma.

Books and apparatus would be loaned by the school, for which students would deposit money in advance, the same to be returned upon safe delivery of material loaned. Tuition would be free to citizens of the State; for other students, a tuition fee of $50 per year would be collected, payable quarterly in advance.

Candidates for a diploma would be obliged to take one year of resident work.

The length of the course necessary to secure a diploma would not be less than three years for students at home and for teachers just beginning their experience. The time required for teachers of several years of experience would vary according to their several abilities, but would be less than two years for the best candidates.

Industrial School. — The proposition of the city of North Adams for the joint establishment by the city and State of a preliminary industrial school which shall be used as a training school is one calculated to aid in the practical solution of what to do with the "wasted years" from fourteen to sixteen. The school would improve all forms of industrial education, by establishing the preliminary form necessary to the best vocational instruction; would facilitate the observation and practice of all students, especially of those preparing to teach industrial arts, as department workers or supervisors in elementary schools.

Statistics.

Statistics for the year ending Aug. 31, 1909, are as follows: —

1. Number admitted in September, 1908: regular courses, 63; special courses, 15; vacation, 21, — all women. Whole number enrolled during the year, 149. Number of graduates, 47.

2. Average age of entering class, 19 years, 7 months.

3. Whole number of students who have been members of the school, 789.

4. Number of students from Massachusetts: Berkshire County, 90; Franklin County, 20; Hampshire County, 10; Hampden County, 6; Middlesex County, 2; Suffolk County, 1; Worcester County, 6; Norfolk

County, 1; Plymouth County, 1; Connecticut, 2; New York, 3; Vermont, 6; Maine, 1. Cities and towns represented: Massachusetts, 33; scattering, 10.

5. Occupations of parents: farmers, 24; merchants, 10; grocers, 5; laborers, 5; superintendents, 4; gardeners, 3; salesmen, 3; foremen, 3; insurance agents, 2; plumbers, 2; clerks, 2; engineers, 2; blacksmiths, 2; grain dealers, 2; tailor, mileage broker, minister, office clerk, assessor, laster, manufacturer, engraver, machinist, mail carrier, doctor, coachman, retired, piano agent, box maker, clothier, cutter, lawyer, bookkeeper, editor, musician, die maker, agriculturist, livery stable proprietor, high school principal, inspector, engraver, wholesale grocer, lumber dealer, lumberman, barber, gas business, janitor, carpenter, loom fixer, boiler maker, paper maker, each 1; unknown, 3; deceased, 19.

FRANK F. MURDOCK,
Principal.

STATE NORMAL SCHOOL, SALEM.

J. ASBURY PITMAN, Principal.

Instructors in the Normal School.

Joseph Asbury Pitman,	Theory and practice of teaching, history of education.
Harriet Laura Martin,	Algebra, geometry, Latin.
Jessie Putnam Learoyd,[1]	English.
Charles Frederick Whitney,[1]	Manual arts.
Mary Alice Warren,[1]	Nature study, physiology, physical training.
Gertrude Brown Goldsmith, A.B.,	Zoölogy, botany, psychology.
Frances Boutelle Deane,[1]	United States history, civics, history of commerce. Librarian.
Helen Hood Rogers,[1]	Reading, physical training.
Cassie Lucretia Paine,[2]	Supervisor of training. Child study.
Fred Willis Archibald,[1]	Music.
Harriet Emma Peet,[1]	Literature, arithmetic.
Louise Caroline Wellman,	Secretary. Typewriting.
Sumner Webster Cushing, S.B.,[1]	Physiography, geography, economic geography.
Frederick Walter Ried,[1]	Manual training.
Walter G. Whitman, A.M.,	Physics, chemistry, physiography.
Charles E. Doner,[1]	Penmanship.
Arthur John Meredith, Ph.B.,	Bookkeeping, commercial law, economics.
Mary Louise Smith, A.B.,	Shorthand, typewriting, commercial correspondence.
Clara Ellen Townsend, Ph.B.,	Shorthand, arithmetic, penmanship.

Instructors in the Practice Schools.

Herbert Leslie Rand,	Principal.

The Practice School.

Herbert Leslie Rand,	Grade eight. Gardening.
Maud Sarah Wheeler,	Grade seven. Sewing.
Marjorie Huse,	Grade six. Sewing.
Bessie Jordan Welch,	Grade five. Sewing.
Sallimae Morrill Dennett,	Grade four.
Mary Elizabeth James,	Grade three.
Delia Frances Campbell,[3]	Grade two.
Gertrude March,	Grade one.
May Heath Noyes,	Kindergarten. Kindergarten methods and principles.

The Bertram School.

Eliza Clara Allen,	Grades three and four.
Susan Ellen Ropes,	Grade two.
Mildred May Moses,	Grade one.
Alice Martha Wyman,	Kindergarten.

The Farms School, Marblehead.

Bertina Dyer,	Ungraded.

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[1] These instructors also teach and supervise in the practice schools.
[2] Absent on leave; Mabel Lucille Hobbs, substitute.
[3] Absent on leave; Bertha Louise Carpenter, substitute.

The Faculty.

Each year brings a few changes in the personnel of the faculty. This year, in consequence of an extension of the work in different departments, three new teachers have been added to the staff.

The second year in the history of the commercial department made it necessary to provide for the instruction of a senior class, and Clara E. Townsend, recently of the commercial department of the Oshkosh, Wis., high school, has been secured as a permanent teacher. She is a graduate of Iowa College, and has had thorough training in those commercial subjects in which she is giving instruction. She has held important positions as a teacher in both high and normal schools, and has had a considerable amount of practical business experience.

Charles E. Adams, after twenty-two years of efficient service as instructor in physical science, has resigned, to engage in a lucrative business; and he has been succeeded by Walter G. Whitman, who for several years has held a similar position in the Ethical Culture School, New York City, and in the summer school of Columbia University. Mr. Whitman is a graduate of Tufts College, and has received a master's degree from Columbia.

Through an arrangement between this school and the normal schools at Lowell, Bridgewater and Framingham, Charles E. Doner, formerly supervisor of penmanship at Beverly, has been employed to give instruction in that subject one day each week. Mr. Doner is a graduate of the Zanerian Art College, Columbus, O. He has taught in the Spencerian Commercial School, Cleveland, O., and in the Heffley School of Commerce, Brooklyn.

Cassie L. Paine, supervisor of training, is spending a sabbatical year in an advanced course of study at Teachers College. Mabel L. Hobbs, formerly a teacher in our practice school and recently a student at Teachers College, is acting as substitute for Miss Paine.

Alton C. Churbuck, principal of the practice schools, resigned at the opening of the school year, to accept a position in Boston. Herbert L. Rand, of the Charles A. Daniels school, Malden, succeeds him. Mr. Rand is a graduate of the Castine and of the Bridgewater normal schools. He has had a large experience as principal of important elementary schools in this State and in Maine.

D. Frances Campbell, teacher in the second grade, is absent on account of poor health, and Bertha L. Carpenter, a graduate of the Framingham Normal School, is in charge of this class.

Helen M. Dillingham and Louise Farrington, teacher of the first grade and kindergartner, respectively, both of whom have rendered valuable service for several years, have resigned. The first grade is now under the instruction of Gertrude March, a graduate of the North Adams Normal School, a teacher in the practice department of the same school, and more recently in a first grade at Plainfield, N. J. May H. Noyes, a graduate of Miss Wheelock's Kindergarten Training School, and formerly at the head of the kindergarten department at the New Paltz Normal School, has been placed in charge of the kindergarten in the practice school. She also conducts a course in kindergarten principles and methods for seniors in the normal school.

Professional Improvement.

This school is fortunate in having an ambitious and progressive faculty. The disposition to improve along professional lines has been encouraged, and, as far as has been possible, opportunities for advanced study have been afforded. Leave of absence for study, courses at summer schools, other special courses for teachers provided by some of the higher institutions of learning, and travel are some of the means of improvement of which members of the faculty have availed themselves during the past year. Many of our instructors are in frequent demand as institute workers and as lecturers before educational associations.

Improvement of the Building and Grounds.

The planting and general improvement of the grounds has been completed, with the exception of repairs upon the walks and driveways. Granolithic has been substituted for the old wooden floors in the corridors in the basement, and a new maple floor has been laid in the gymnasium. With the addition of a system of shower baths which should be installed next year, the gymnasium will satisfactorily meet the present needs of the school. With the exception of the lunch room, which will soon require extensive repairs, the building is now in excellent condition.

Course of Instruction.

The standards of scholarship have been raised so that an increasing number of students are finding it to their advantage to remain in the school three years. Great care is exercised in the admission of students, and those who have been received into the school and subsequently found to be deficient in those essential qualifications upon which a course for the professional training of teachers must be founded, are promptly advised to withdraw.

Penmanship. — For several years an elective course in penmanship has been offered, but last September a prescribed course in this subject was introduced for both juniors and seniors.

Kindergarten. — A kindergarten course has been established, not for the purpose of training kindergartners, but to enrich the preparation of primary teachers by making them thoroughly familiar with the educational principles upon which the kindergarten is founded, and with the matter and method of kindergarten instruction. All members of the senior class have the benefit of this course, and all students who teach in the first and second grades in the practice schools are required to observe in the kindergartens.

Physical Science. — The course in physical science has been in process of revision for several years. We are now prepared to offer courses in industrial physics and chemistry, which will be conducted by an instructor who has been specially trained and who has had valuable experience in this particular line of work. It is hoped that this will lead to the introduction of a course in domestic science appropriate to the needs of regular teachers in the elementary grades.

Industrial Work. — The industrial work is one of the chief centers of interest. The flower and vegetable gardens and the geography garden afford a wealth of opportunity for correlation with the older subjects of instruction, and substantial products of the children's industry are being realized and exemplified in the higher grades of the practice school.

The character of the shop work by the boys of the sixth, seventh and eighth grades has been determined, to a considerable extent, by the needs of the garden; the playground equipment has been made in the shop, and the boys are able to supply many other needs of the school which demand the use of hand tools.

Sewing is taught by the regular teachers in the grammar grades, and the instruction is of the most practical character, the needs of the home and of the school determining the nature of the course. Among the products of this work are two State flags made during the year by the children of the seventh grade.

Recently book binding has been introduced, with the promise of excellent results.

Industrial courses appropriate to the needs of the younger children prepare for this work in the higher grades. Many of the implements required for use in the industrial courses are made by the children, and the normal students make equipment to be used in their teaching. The industrial courses for students in the normal school are calculated to prepare them to give instruction similar to that provided for the children in our practice schools.

Commercial Department. — The commercial department retains its early popularity. Last June twenty students were graduated from the advanced elective course. A large proportion of these have already secured positions in commercial departments of high schools, at salaries ranging from $500 to $900; but a few have been obliged to turn to the grammar schools for the experience in teaching which is demanded by many superintendents. Inasmuch as several of these students are also graduates of our elementary course, they are qualified to fill such positions.

At present the course is but two years in length. Students who are admitted directly from high schools and who have had no experience in business or in teaching should be required to spend at least three years in preparation before they should be permitted to teach in a high school, and the work of this department should be modified accordingly. Elective courses of one and two years should be offered to meet the needs of graduates of colleges, normal schools and private commercial schools, and of experienced teachers.

Observation and Practice.

In less than four years our system of practice schools has been increased from nine to fifteen rooms, including the Bertram primary school and the model rural school in Marblehead. Opportunity for practical experience in teaching is also provided in the Pickering grammar school in this city. For the benefit of the students in the commercial department, arrangements have been made for an unlimited amount of observation and practice in the Salem Commercial School and the Salem high school. The use of the three schools last named is generously allowed without expense to the State.

It has been the custom to allow all members of the junior class to spend one week each year in observation in approved schools in this vicinity. They also do a considerable amount of observing in the practice schools under the supervision of their instructors.

The period spent by the seniors in observation and practice in teaching has been increased, this year, from six to nine weeks. This includes a limited amount of teaching as substitutes in schools other than our own.

Other Needs.

In three years the membership of the normal school has increased forty-nine per cent. While that part of the practice department which is housed in the normal school building has not grown in the same proportion, the schoolrooms are already crowded, and the school population in the district is steadily increasing. The establishment of the commercial department and the general increase in membership make it imperative that more room should be provided for the accommodation of the normal school. The most satisfactory solution of the problem would seem to be the erection of a suitable building for the practice department, large enough to provide for future growth.

and the exclusive use of the present building by the normal school. Since the city will soon find it necessary to provide additional accommodations for the children in this section, it is probable that some arrangement to the mutual advantage of State and city can be made.

The opening of the commercial department has added materially to the number of resident students, and it is becoming increasingly difficult for them to secure suitable boarding places at moderate prices. For this reason, the necessity of a dormitory is becoming more apparent each year. Moreover, it is needed as a center of influence which should be an important factor in the education of students, and as a means of conserving the time and energy which is now spent by the majority of them in travelling, each day, between their homes and the school.

I earnestly recommend that the Board of Education give these needs their careful consideration.

Lectures.

Some Mexican Aborigines, — Rev. Peter H. Goldsmith, D.D., pastor of the First Church, Salem.

Scientific Temperance Instruction, — Mrs. Edith S. Davis, superintendent of Scientific Temperance Instruction, National W. C. T. U.

The Character and Influence of Lincoln, — Rev. Edward Cummings, D.D., associate pastor of the South Congregational Church, Boston.

Recital: Mendelssohn, — The Myra Winslow Trio.

Aims of Instruction in the Manual Arts, — Frederic L. Burnham, agent for the promotion of manual arts, Massachusetts.

Sidney Lanier, — Mrs. Kate Gannett Wells, member of Massachusetts Board of Education.

A School of Savagery, — Charles A. Eastman, M.D., Amherst, Massachusetts.

Some Phases of Industrial Education, — Allen Rogers, Ph.D., instructor in industrial chemistry, Pratt Institute.

The Relation of Drawing to Industrial Education, — Walter Sargent, University of Chicago.

The Social Education of Boys, — John E. Gunckel, president of the National Newsboys' Association; Miss Jane Day, the discipline nurse.

The Education of Mentally Defective Children, — Bertha S. Downing, M.D., formerly of School for the Feeble-minded, Vineland, N. J.

Memorial Day Address, — James Burrows, Post 11, G. A. R., Lynn.

Graduation address: The Qualities that Attract Success, — Mrs. Ella Lyman Cabot, member of Massachusetts Board of Education.
Old Plantation Days in the South, — Rev. Peter H. Goldsmith, D.D.
Education for Efficiency, — Arthur D. Dean, chief of department of trade schools, New York State Department of Education.
The Physical Side of Educational Work, — Richard C. Cabot, M.D., Boston.

The following lectures were arranged particularly for the commercial department: —

Some Defects in Our Currency System, — Joseph French Johnson, dean of the School of Commerce, Accounts and Finance, New York City.
Instruction in Salesmanship, — Mrs. Lucinda W. Prince, director of classes in salesmanship, Woman's Educational and Industrial Union, Boston.
Aims and Purposes of Commercial Education, — Cheesman A. Herrick, Ph.D., principal of the William Penn high school, Philadelphia.
Commercial English, — Mr. Carlos B. Ellis, Technical High School, Springfield.

The annual convention of the New England High School Commercial Teachers' Association was held at the school in October.

The following public entertainments were presented by the school: —

Concert, — The Glee Club.
Old Time Schools, a Pageant, — Class of 1909.

Statistics.

1. The whole number of students in attendance during the year ending July 1, 1909, was 250. Of these, 149 came from Essex County, 66 from Middlesex County, 18 from Suffolk County, 2 from Norfolk County, and 1 each from Berkshire, Worcester, Bristol and Hampden counties. From New Hampshire there were 5; from Vermont, 4; from Maine, 2. Since the school was established in 1854 there have been 5,674 students enrolled, of whom 3,062 have been graduated from regular courses, and 77 have received certificates for work done as special students.

2. The number of new students admitted to the school during the year was 143, of whom 18 were special students. Among them there were 9 who had had experience in teaching. Of the new students, 25 came from Salem, 16 from Lynn, 12 from Danvers, 7 from Malden, 6

from Chelsea, 5 from Amesbury, 4 each from Boston, Somerville, Revere and Everett; 3 each from Beverly, Wakefield, Groveland, Saugus and Peabody; 2 each from Rowley, Swampscott, Ipswich, Manchester, Stoneham, North Reading, Bradford, Cambridge, Andover, Melrose, Walpole and Rockport; 1 each from Brookline, Topsfield, North Andover, Essex, Gloucester, Reading, Dalton, Franklin Park, North Raynham, Athol and Concord. There were also 2 from Maine, 2 from New Hampshire and 2 from Vermont. At the beginning of the school year the average age of the new members of the school was 18.9 years.

3. The occupations of the fathers of the new students were as follows: mechanics, 22; managers, superintendents, and foremen, 16; manufacturers, 12; farmers, 14; merchants, 11; laborers, 8; carpenters, 7; janitors, engineers, clerks, 5 each; policemen, conductors, bookkeepers, 4 each; clergymen, agents, 3 each; electricians, salesmen, lawyers, teachers, physicians, 2 each; sailors, draftsmen, portrait painters, printers, tailors, editors, hotel keepers, conductors, 1 each; unknown, 2.

4. The number of graduates June 22, 1909, was 70, and 26 received certificates for the completion of a year's special work.

J. ASBURY PITMAN,
Principal.

STATE NORMAL SCHOOL, WESTFIELD.

CLARENCE A. BRODEUR, Principal.

Instructors in the Normal School.

Clarence A. Brodeur,	Pedagogy, school law, school management.
Lewis B. Allyn,	Mathematics, chemistry, physics.
Edith L. Cummings,	Gymnastics, manual training.
Frederic Goodwin,	Vocal music.
John C. Hockenberry,	Psychology, history of education, geography.
Mrs. Adeline A. Knight,	English, literature, history.
Louis G. Monté,	Drawing.
Charles B. Wilson,	Natural science.

Training School.

George W. Winslow,	Principal.
Amy C. Balcom,	Eighth grade.
Alice M. Winslow,	Eighth grade.
Anna M. Downey,	Seventh grade.
Clara L. Bush,	Seventh grade.
Lucia A. Coleman,	Sixth grade.
Ella J. Downey,	Sixth grade.
May T. Grout,	Fifth grade.
Edith M. Robbins,	Fifth grade.
Eliza Converse,	Fourth grade.
Frances L. Foster,	Third grade.
Florence P. Axtelle,	Second grade.
Eunice M. Beebe,	First grade.
Emma L. Hammond,	Kindergarten.

Changes in Faculty.

There has been but one change in the teaching force during the past year. Miss A. Annette Fox finished her work in June, and was succeeded by Miss Amy C. Balcom of Springfield. The year has been one of uninterrupted work; it is therefore a matter of more than ordinary satisfaction to review some of its results.

Character of Work.

For a long time it has been the belief of teachers and principal that good scholarship is the basis of good teaching; that with such a foundation, laid by sympathetic teachers in the atmosphere of the right kind of normal school and in accordance with true pedagogical principles, methods will take care of themselves and teachers will adapt themselves to conditions. This school is heartily in sympathy with the recent movement for industrial efficiency, but conservative enough to wish to retain all the virtue of mental discipline, all the enjoyment of beauty and culture; it would articulate with life, but with life at its best. It aims to teach the staple subjects of the school curriculum as related to every-day experience rather than to theory; to make its physiology and botany adaptable to the individual and to the home, its drawing æsthetic as well as practical, its mathematics usable, its history suggestive, its chemistry protective. It welcomes every change that is calculated to make the pupils of the public schools better able to earn their own living, wiser in the use of their leisure hours, more appreciative of the better things of life and more serviceable to the State.

Lectures, Concerts and Receptions.

An effort is made every year to quicken the school spirit and interest, to educate through the social instinct, and to bring students into contact with people of reputation in lecture and concert fields. The program for 1908-09 has been as follows: —

Complimentary reception to Mr. Will S. Monroe, retiring teacher of psychology and geography.

Rip Van Winkle, — a recital. Mr. George Kiernan, elocutionist.

Lecture, — an interpretation of the pictures on the walls of the assembly hall. Mr. Walter Pach, New York.

Lecture recital, — Tennyson. Principal Clarence A. Brodeur, assisted by Miss Ilma Schadee, soprano; Miss Hazel Huntley, contralto; Mrs. Frederic Goodwin, pianist; Mr. Charles L. Hoyt, tenor; Mr. Frederic Goodwin, bass.

Lecture recital, — Longfellow. Principal Clarence A. Brodeur, assisted by musicians named above.

Trio concert of chamber music. Miss Lena J. Bartlett, pianist; Mr. Victor L. F. Rebmann, violinist; Mr. Edwin B. Hedges, 'cellist.

Moral Leaders, — a course of seven lectures by Prof. Edward Howard Griggs, Montclair, N. J.: Socrates, St. Francis of Assisi, Savonarola, Victor Hugo, Thomas Carlyle, Ralph Waldo Emerson, Count Tolstoi.

Lecture, — National Dangers and National Defence. Mrs. Lucia Ames Mead.

Organ recital, — complimentary to class of 1909. Mr. Fred Clark, Northampton, assisted by Mr. Frederic Goodwin, bass.

Faculty reception to the members of the senior class and their friends.
Graduation address, — The Call to Teach. Prin. Charles H. Keyes, Hartford, Conn.

School Decoration.

Pictures, as given below, have been hung on the walls of the assembly hall: —

Michelangelo Buonarroti: Prophets, — Daniel, Ezekiel, Isaiah; Sibyls, — Cumæan, Delphian, Erythræan, Persian, Libyan.
Don Diego Rodriguez Velasquez: Mœnippus; Æsop.
Harmensz Van Ryn Rembrandt: Syndics of the Drapers in 1661.
Franz Hals: Reunion of the Officers of the Corps of Archers of St. Andrew.
Jean Baptiste Camille Corot: Four Landscapes.
Donatello: St. George.
The Temple of Athene Parthenos.
Coliseum.
Vestal Temple at Rome.
The Roman Forum.

Statistics.

1. Number of students admitted to the Westfield Normal School since its organization, 5,090. Number graduated since 1855, 2,155. Number graduated in June, 1909, 60. Number rejected or who did not enter, 14. Number entering in September, 1909, 89.

2. Average age of students admitted in 1909, 18 years, 3 months, 24 days.

3. Residences, by towns, of those who entered in September, 1909: Belchertown, 1; Bellows Falls, Vt., 1; Blandford, 1; Brimfield, 2; Chester, 2; Chicopee, 3; Claremont, N. H., 1; Easthampton, 1; Egremont, 1; Fall River, 1; Hardwick, 1; Holyoke, 15; Huntington, 1; Ludlow, 2; Middlefield, 1; Milford, 3; Montgomery, 1; Palmer, 5; Plainfield, N. J., 1; Prospect, Conn., 1; South Hadley, 5; Sturbridge, 1; Springfield, 19; Ware, 1; Warren, 1; Westfield, 11; Granville, 1; West Springfield, 1; West Stockbridge, 1; Wilbraham, 1; Williamsburg, 2.

4. Residences, by counties, of those who entered in September, 1909: Berkshire, 2; Bristol, 1; Hampden, 66; Hampshire, 11; Worcester, 5; out of State, 4.

5. Occupations of parents: barber, 1; clerks or salesmen, 9; contractors, 4; druggist, 1; farmers, 9; fireman, 1; mail carrier, 1; mason, 1; mechanics, 10; minister, 1; laborers, 13; manufacturers, 4; merchants, 12; police officer, 1; printer, 1; stock broker, 1; superintendents or overseers, 8; teachers, 2; retired, 3; deceased, 6.

CLARENCE A. BRODEUR,
Principal.

STATE NORMAL SCHOOL, WORCESTER.

FRANCIS R. LANE, Principal.

Instructors.

Francis Ransom Lane,	Theory and art of teaching, reading, psychology of childhood.
Rebecca Jones,	Elementary methods, supervision of apprentices, sewing.
Arabella H. Tucker (clerk),	History of education, botany, penmanship.
Anna P. Smith (librarian),	Mathematics, supervision of apprentices.
Amy L. Boyden,	Teacher of primary class, elementary methods.
Henrietta A. Murray,	Gymnastics, school games.
Horace G. Brown,	Literature, English grammar, history.
Edward L. Sumner,	Choral singing.
Robert S. Baldwin,	English, civil government, Latin.
Lee Russell,	Chemistry, mineralogy, supervision of apprentices.
Robert M. Brown,	Mathematics, physics, geography.
J. Mace Andress,	School hygiene, psychology.
Annie L. Turner,	Kindergartner.
Helen M. King,	Drawing.
Wilhelmina Baldwin,	Music.

Buildings and Grounds.

"Normal Hill" is an unusually attractive location for a school. Five acres of rolling grounds with oaks and maples and a profusion of shrubbery give to the situation much of the beauty and charm of an English home park. Unfortunately, the lot is on the east side of the city, in close proximity to the jail, the insane asylum and the myriad tracks of the Boston & Albany Railroad. This region, which at the time of the founding of the normal school, thirty-five years ago, is said to have been a promising residential portion of the city, has grown less valuable for homes, although perhaps more valuable for trade and manufacturing. In a city whose industries are chiefly manufacturing, burning large quantities of soft coal, the fact that the prevailing winds keep the atmosphere of the east side pretty generally loaded with soot and dirt made it inevitable that the quarter should deteriorate.

The main building, a granite structure built in 1874, falls far short of satisfying the demands of a modern school. In laboratories, work rooms, facilities for manual training, handcraft and domestic science, rest rooms, library and reading rooms, the building is so deficient that the school is seriously handicapped. With the present enrollment, too, the capacity of the building is strained. Should the course of study be made broader and more flexible, creating a need for a larger number of class rooms and laboratories, or should the number of pupils increase, as it is reasonable to suppose that it will in the near future, the building will be taxed beyond its capacity.

Stoddard Terrace, the dormitory built on the cottage plan, with but a limited number of rooms for students, was erected some years ago without kitchen and dining room accommodations, in the expectation that members of the school who roomed here would be able to find table board in the immediate vicinity. It was no doubt believed also that the school would draw many boarders from homes beyond convenient trolley distance from the city, who would, if Stoddard Terrace proved inadequate to accommodate their number, find suitable homes in boarding houses of a high class, privately conducted, in the region of the school. For some years neither of these expectations has been realized, and it seems certain that in the future the causal conditions must grow worse rather than better.

Theoretically, at least, the conditions which are now undoubtedly preventing the growth of the school in the boarding department might be met by the erection of a large dormitory or a series of houses on the cottage plan. Before the dormitory problem is debated, however, it is wise to consider whether an antiquated school building, the noise and dirt of the east side and a widespread prejudice against an institution in an undesirable locality, do not demand the early sale of the property and the economical construction in a wisely chosen locality of a school structure which shall be a model in convenience and adaptation to educational needs. As the demand for trained teachers in the State of Massachusetts is in excess of the supply, it is a wise policy to increase in every way possible the output of the normal schools of the Commonwealth. If the Worcester Normal School is to fulfill its high mission both as to numbers and professional power of its graduates, its limitations in location and plant should be removed by judicious action of the Board of Education.

Stoddard Terrace.

This building for a number of years has been used only in part. It is now occupied as a dormitory by a handful of teachers and pupils; a basement tenement is used by one of the janitors. Three rooms have been turned into kitchen and dining rooms, and here a lunch at a moderate price is regularly served to a number of teachers and students, in addition to those who live in the dormitory. These various uses of the house make it possible to meet the running expenses, and from the business point of view warrant keeping it open. In addition, the building is serving in a limited way as a valuable center of some phases of social life.

During the coming summer it will be feasible without excessive expense to put the building in good repair, and to furnish the students' rooms with reasonable attractiveness. If this is done, and the fact properly exploited, it may bring a dozen or more students into the school another year. While experience has shown that it is not possible to make a school boarding hall self-supporting when it is occupied by less than 50 pupils, some concessions might be made to Stoddard Terrace temporarily, if by so doing the number of students in the normal school were increased.

The Apprentice System.

This system has been maintained on the theory that it is a more productive form of practice teaching than any other, in that it places the apprentice at once in contact with a school of the usual type, instead of one in which the conditions are greatly superior to those of the ordinary public school.

There is without doubt valuable development to be expected from any system which gives the normal school student the opportunity to teach for a year. In this time he finds himself, discovers his limitations and gets confidence in his powers. The fault of the system, however, is that it is wasteful of opportunity; it is uneconomic. The plan is defective because the apprentice is received in the city school by courtesy only. She has no responsibility to the authorities of the Worcester schools, nor have the teachers in whose class rooms the apprentice is received — perhaps tolerated is a better word — any slightest modicum of responsibility for the training of the apprentice, nor any official relation to the supervising authorities of the normal school.

If the public school teachers, as a result of altruism, professional conscience or personal friendship, are willing to assist the apprentices, it goes without saying that they are not all experts, nor are they prepared by their training to serve as constructive and helpful critics. The system breaks down from the fact that there is not and can not be any unity of purpose or proper interrelation of responsibility between the State and the city schools, upon the present basis.

A radical change is necessary; there should be far more supervision; the heads of departments in the normal school and the critic teachers should be intimately associated in their efforts and in their responsibilities. Whatever the number of schools retained as practice schools, their selection must be made because of special fitness of the teachers to train normal school pupils. These teachers, paid in part by the State, must be responsible to the normal school for the character and results of their work.

The Pupils.

It is confidently believed that the number of pupils can be augmented by strengthening the course of study, offering additional opportunities for special work, bettering the equipment, and doing such publicity work as shall make the increased facilities of the school known to the graduates of the Worcester high schools and the high schools of the surrounding towns.

The Course of Study.

The curriculum of the school has included in the past the prescribed minimum course, and in addition much emphasis has been given to the subject of child study. Little attention has been paid to school gardening, domestic art and science, manual training, industrial and vocational education.

The school must be professionally alert, keenly alive to the constantly changing conditions of society, and responsive to the demands which modern life makes upon it. There should be alternative courses offered. There are here students of diverse abilities and aspirations. Some desire to become bread winners at the earliest possible moment, preferring the briefest productive course which will secure them a diploma. There are others who would take advantage of every opportunity furnished by the school, both in extended courses and in breadth of elective subjects.

It will be possible to graft upon the present excellent kindergarten a course in the theory and practice of kindergarten education. From such a beginning a department will develop giving all the instruction necessary for the training of efficient kindergartners.

Some phases of domestic art and domestic science must be installed the coming year. Nature study may also be added to the course. Manual training as taught in elementary schools, including hand work for primary grades, materials and methods, woodworking for elementary schools, and applied design, should be included in the revision of the curriculum.

Unfortunately, the academic preparation of elementary teachers seems necessarily shallow. This condition may be corrected in a measure by offering, to those who can be prevailed on to give a fourth year to normal school studies, scholarship electives in language, history, science and possibly mathematics. It would raise the whole tone of instruction in the grade schools were there to be placed in them annually a small body of teachers who, in addition to the theoretical and practical work demanded of all graduates of the normal school, had some breadth of scholarly attainment in at least one of the subjects of the elementary curriculum.

In the great forward movement for industrial and vocational education in the State, there is bound soon to be a demand for men and women capable of teaching in trade schools and shops. Experience in the manual training schools has shown that artisans, masters of their trades though they were, in most cases were far from successful as instructors. The book-trained man has been even less successful. The demand of the future will be for skilled workmen, who, from some study of the principles of education, some practice training, will be prepared to give competent and effective instruction in the new type of school. The Worcester Normal School, possibly in evening courses at first, may well be the pioneer in offering such preparation.

Statistics.

1. Number of different students for the year 1908–09, 137.

2. Number admitted in September, 1909, 67. Number admitted since the beginning of the school in 1874, 2,141.

3. Average age of pupils last admitted, 18 years, 6 months.

4. Residences of pupils last admitted: Worcester County, 65; Franklin County, 1; Hampden County, 1; total, 67.

5. Occupations of pupils' parents: mechanics, 21; laborers, 9; foremen, 7; janitors, 3; farmers and gardeners, 3; commercial travellers, 3; firemen, 2; clerks, 2; agents, 2; engineers, 2; merchants, 2; circulation manager, contractor, artist, insurance broker, barber, motorman, lumber dealer, butcher, mail carrier, stable keeper, retired, 1 each; total, 67.

6. Number in the graduating class, June, 1909, 39. Number of graduates since 1876, 1,270.

7. Average age of the graduating class, June, 1909, 21 years, 5 months.

8. Library: number of reference books, 8,048; number of text-books, 6,044; total, 14,092.

FRANCIS R. LANE,
Principal.

STATE NORMAL ART SCHOOL, BOSTON.

GEORGE H. BARTLETT, Principal.

Instructors.

George H. Bartlett,	Lecturer on historic ornament; instructor in the arts of lithography, the modern processes of reproduction, blackboard illustration.
Albert H. Munsell,	Drawing and painting from the antique figure and living model, composition, artistic anatomy.
Edward W. D. Hamilton,	Drawing and painting from the antique figure and living model, composition.
Ernest L. Major,	
Joseph R. DeCamp,	Painting from the living model, portraiture.
Anson K. Cross,	Freehand drawing, light and shade, perspective, model drawing theory.
Richard Andrew,	
Ethel G. Bartlett,	Freehand drawing, light and shade.
Ross Turner,	Water-color painting.
Vesper L. George,	Design.
Laurin H. Martin,	Applied design, laboratory work.
George Jepson,	Descriptive geometry, mechanical drawing and laboratory work.
Cyrus E. Dallin,	Modelling from antique and life, composition.
Annie E. Blake,	Modelling and casting, design in the round.
Ralph E. Sawyer,	Building construction, architectural drawing and design.
Albert S. Kendall,	Applied mechanics.
Joseph H. Hawes,	Sloyd and mechanic arts.
Frederick M. Wilder,	Sloyd.
Frederic L. Burnham,	Supervision.
Lucy D. Taylor	Teaching exercises, graded illustrative work, drawing in relation to other studies.
John L. Frisbie,	Ship draughting

Mercy A. Bailey.

It is with feelings of deep regret that we announce the death of a valued member of the faculty, Miss Mercy A. Bailey, who entered into rest on May 10, 1909. She was an indefatigable worker, an earnest teacher, possessing a cheerful and winning personality.

Few will ever know of the quiet and unostentatious manner in which she helped needy students during the many years she was connected with the school, except those who were the recipients of her kindness.

Her religion was not theoretical, but very practical, as many worthy institutions could have testified during her lifetime. Her influence is still with us, though her presence will long be missed.

ADDITIONAL INSTRUCTION.

Two lectures in applied mechanics were given each week by Mr. Albert S. Kendall.

A course of lectures was also given in psychology by Miss Mary A. Laing. These were received with much favor by the students, and proved very helpful to them in their practice teaching.

The senior class deeply appreciated a course of lessons on drawing and supervision in the public schools, by Mr. Frederic L. Burnham, the State agent for the promotion of the manual arts. These lessons were given on Saturday mornings of each week.

A course of lessons in sloyd by Mr. Frederick M. Wilder was given during the second term, from February to June.

TEACHERS.

Owing to the decease of Miss Mercy A. Bailey and the resignation of Mrs. Mary G. Batchelor, two new teachers were appointed last June.

Mr. Ross Turner, who for many years has held and still holds the position as instructor in water color painting at the Massachusetts Institute of Technology, was appointed instructor in water color painting, to fill the vacancy caused by Miss Bailey's death.

Miss Lucy Taylor resigned her position as assistant supervisor of drawing in the Boston schools, in order to accept the appointment as instructor and critic teacher in place of Mrs. Batchelor, resigned.

Mr. Frederick M. Wilder, who gave a few lessons in sloyd during the second term, was appointed as instructor in that subject.

The appointment of these three instructors was made by the Board of Education, their services to begin on October 1 of this year.

Mr. Cyrus E. Dallin, who was granted a year's leave of absence abroad in order to complete a professional commission, the soldiers' monument for Syracuse, N. Y., has returned and resumed his position as instructor in modelling.

Practice Teaching.

Not having a model school connected with our school, the Boston school committee very kindly allowed the Prince and Perkins schools to be used as such. The school availed itself of the privilege by sending 40 students of the senior class, last spring, to engage in this practice teaching under the personal supervision of a critic teacher. Each student had full charge of a grade during the drawing period. The results proved entirely satisfactory to the Boston school committee.

Evening Classes.

There were 175 applications from grade teachers for admission to these classes. Owing to inadequate provision, 100 only were admitted; 38 of these were from Boston and 62 from the suburbs. These classes were in session fifty nights, beginning in November and ending the first week in May. The teachers who were admitted expressed themselves as being deeply grateful to the Board of Education for affording them this privilege for study. They were thoroughly earnest in their work, and the excellent results obtained by them was a source of pleasure and surprise to all of their instructors.

Already there are a number of new applications placed on file. It is hoped that these classes may be opened again next fall.

Drawing in the Public Schools.

Greater stress than ever before should be brought to bear upon this subject in every school in this State, since it is a universal language, and undoubtedly is an important factor in the foundation of all the industries. In fact, all those engaged in the various commercial activities of a country should realize that the ability to give graphic expression in conjunction with the written thought would often economize time and save much misunderstanding.

Exercises in constructive drawing are calculated to develop that great essential, — an orderly mind, and a just appreciation of the value of accuracy in all things.

Representative drawing, color and design should be insisted upon as a means of encouraging a love for the beautiful and good taste in the community at large.

A well-defined method in teaching constructive and freehand representative drawing, color and design in all the schools should obtain, in order to realize these results.

The time devoted to drawing in our public schools should not be curtailed in order to give more time to the study of other subjects; on the contrary, more time should be given than at present.

As the late Louis Agassiz expressed it, " A pencil is one of the best of eyes."

Dr. Charles Eliot, president emeritus of Harvard University, in the course of his address before the Massachusetts Normal Art School Alumni Association last April, said: " In schools to which drawing has been admitted, the time allotted to the subject is often utterly inadequate. An hour or an hour and a half a week is considered by program makers very liberal; but how inadequate is that time! Drawing, I had almost said, is as valuable and important a mode of expressing thoughts and making records as language itself."

Technical Instruction.

Owing to the solicitation of some of the leading firms engaged in the lithographic and kindred arts in this State, and with the sanction of the Board of Visitors to the school, a class was formed of some of the young men who are taking one of the regular courses, to study the various technical branches of this art, supplemented with practice in drawing on stone and zinc plates for black and color printing. The course of study is planned to cover a period of three years.

Another class has been formed of some of the young women who are taking one of the regular courses, to be trained in technical drawing for commercial art, so-called, adapted to the modern processes of reproduction by chemical engraving. Each class devotes one day in each week to the study of this technical work.

Thus far the results have been very satisfactory. It may be a surprise to many, who associate the art of lithography with fine art alone, to learn that the product of this art industry has now entered into nearly all branches of trade, and has become an indispensable factor to the commercial world at large and to those industries that seek to advance their output by graphic notoriety in the form of advertising.

Were it not for the lack of adequate room and the necessary equipment, the school at the present time could readily give technical training in other of the art industries, which would form the practical sequence of much of the subject matter as taught in the school. These are, more specifically:

The art of wood carving for the enrichment of furniture, etc., the art of stone carving for the enrichment of interiors and exteriors of buildings, and pottery, which would form the practical sequence to the modelling course.

Component parts of machinery, wrought iron grill work, etc., would form the practical sequence to the subject matter taught in the constructive course.

Memorial stained glass windows, mural decoration and the art of book-binding, etc., would form a practical sequence to some of the subject matter taught in the design course.

ENLARGEMENT.

Direction in which the school should grow to give increased practical service to the State: —

The school has never lost sight of the object for which it was established, viz.: *the training of teachers* to teach industrial drawing in the public schools of the State and the evening industrial drawing schools. This it has done ever since it was founded, and has not changed its policy in that direction. But it should not be forgotten that it was distinctly stated and definitely understood by all those interested in the work of the school from its birth that in the future of its history it would be expected to furnish higher technical education in relation to the industrial arts.

Surely the time is ripe for this advance to be made; and it can be, if the State will provide a suitable building with right equipment.

Few if any of the State schools are in greater need of increased accommodation at the present time than the Normal Art School. For the last four years applicants for admission to the school have far exceeded its accommodation, and, although they were eligible regarding age and education, we have been obliged to deny them.

Owing to the growth of the school, the present building has become totally inadequate both in its construction and size to admit of the students pursuing their studies to the best advantage and the good reputation of the school. Many of the class rooms and studios have to be so crowded at times that we are forced to disobey the laws of hygiene. The corridors are crowded with clothes lockers, and are so dark that it is necessary to have the electric lights burning continuously.

Normal Technical Training.

Will this not be necessary to meet the demand for teachers in the near future?

The complex problems, which are involved in the present movement for industrial education, demand the serious consideration of all our educational institutions.

Owing to the decided trend of this movement toward vocational training, we must not be surprised that many, both teachers and laymen, in their earnestness to express their belief in its soundness, attempt to do much in the schools which later will prove to have been inexpedient, if judged from a practical standpoint. This may be expected, inasmuch as when any new form of education is passing through a period of transition, failures are likely to occur; but this should not discourage us, if we bear in mind that failure at first often furnishes the opportunity for the development of healthful strength in the right direction.

We may be assured that the problems of industrial and vocational education will not and can not be solved until our minds are so adjusted that we can focus them upon that which is definite and practical.

In considering this important subject, and the relation which it should have to our present educational system, several pertinent questions naturally arise in the mind: —

To what extent and in what manner can the normal schools of the State with their present curriculums of study be adjusted to meet the necessary requirements for the training of teachers who will be needed to teach in a practical manner the technical details of the various industries?

If industrial vocational schools are to be established in this State, is it not time to consider the importance of training teachers for this work?

Unless those chosen to instruct in such schools have themselves mastered the technical details of the trades and industrial arts, will their instruction be of any practical value to their pupils?

Further, unless the teachers for these schools have had normal instruction, should they be regarded as being competent to impart in logical order their practical knowledge of the subjects?

Reception.

The principal of the school felt himself highly honored by the State Board of Visitors to the school, who, in conjunction with the faculty and alumni association, tendered him a reception on February 12, in recognition of his long service in connection with the school, he having been the first teacher appointed when it was opened in November, 1873, and its principal for the last twenty-five years.

The affair was attended by a large and representative number of people. Mrs. Kate Gannett Wells, at that time chairman of the Board of Visitors, kindly acted as chairman of the occasion, and introduced the following speakers: Mr. Thomas B. Fitzpatrick; Mr. George H. Martin, then secretary of the Board of Education; President Carter of the Maryland Institute of Baltimore, Mr. Frederick Hopkins, its director, and Judge Sands of Baltimore; Miss Georgie Norton, director of the Cleveland School of Art; Mr. Howard Walker, director of the School of Design, Museum of Fine Arts; Mr. Charles W. Furlong, president of the Normal Art School Alumni Association; and Mr. Harry Jacobs, president of the senior class of the school.

At the close of these exercises the principal was much affected by receiving a beautifully engrossed testimonial, signed by all the members of the faculty, expressing their appreciation of his kind consideration of them and his management of the school. A further expression in concrete form was the presentation of an exquisitely designed loving cup from the alumni, and a handsome student reading lamp from the undergraduates.

GIFTS.

The late Miss Mercy A. Bailey has bequeathed her library, which contains many standard works on art, to the school. She has also given one half the proceeds realized from the sale of her personal property, to render occasional help to indigent students in the school.

At the graduating exercises last June the senior class presented the school with a fine carbon portrait, suitably framed, of its principal.

STATISTICS.

Total number of students, 342; men, 58; women, 284.

Average age of pupils who entered for the first time, 19 years.

Number of students from the several counties of the State: Barnstable, 3; Berkshire, 2; Bristol, 5; Dukes, 2; Essex, 41; Franklin, 1; Hampden, 4; Hampshire, 1; Middlesex, 98; Norfolk, 26; Plymouth, 19; Suffolk, 106; Worcester, 25; total, 333.

Students from other States are as follows: Maine, 1; New Hampshire, 4; Vermont, 1; Connecticut, 2; Indiana, 1.

Occupations of fathers of students: professions, 15; teachers, 1; real estate and insurance, 3; contractors and builders, 11; merchants and traders, 33; manufacturers, 10; commercial business, 32; farmers, 11; mechanics, 51; other vocations, 99; retired, 20; deceased, 56.

Graduates in June, 1909, 61; public school course, 41; course in drawing and painting, 8; course in constructive arts, 3; course in decorative and applied design, 8.

GEORGE H. BARTLETT,
Principal.

State Normal Schools.

Table showing admissions and attendance for 1909, with other normal school data.

NORMAL SCHOOLS.	Teachers in normal schools.		Teachers in model and practice schools.		Admitted to —		Number of different students for 1908–1909.			Attendance Dec. 1, 1909.			Number of graduates in 1909.	Different students from the beginning.	Graduates from the beginning.
	Men.	Women.	Men.	Women.	Entering class.	Higher or special classes.	Men.	Women.	Totals.	Men.	Women.	Totals.			
Bridgewater,	8	11	1	11	130	20	31	229	260	44	246	290	96	6,015	4,018
Fitchburg,	4	10	4	20	99	15	–	196	196	–	230	230	73	954	473
Framingham,	7	11	–	11	143	–	–	262	262	–	264	264	103	5,093	2,872
Hyannis,	3	4	1	5	20	2	12	37	49[1]	8	32	40	27	428	246
Lowell,	4	8	1	35	81	5	–	144	144	–	174	174	50	1,027	653
North Adams,	4	5	–	21	51	4	–	149	149	–	124	124	47	770	383
Salem,	8	11	9	24	120	19	7	243	250	6	231	237	70	5,675	3,062
Westfield,	6	2	1	13	89	14	1	165	166	–	167	167	60	5,090	2,155
Worcester,	7	6	–	2	67	–	11	126	137	12	140	152	39	2,141	1,270
Normal Art (Boston),	16	3	–	–	93	–	58	284	342	57	278	335	61	3,674	1,482
Totals,	67	71	17	142	893	79	120	1,835	1,955	127	1,886	2,013	626	30,867	16,614

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[1] In addition, summer session students, 205.

DETAILED REPORT

OF

WORK OF THE BOARD.

DETAILED REPORT OF WORK OF THE BOARD.

To the Board of Education.

Acting under the following votes of the Board, I have performed the assigned duties, and respectfully present reports thereof: —

JULY 2, 1909.

Voted, That George H. Martin be appointed acting treasurer of the Board, with charge of the routine work of the office, and with power to approve vouchers and certificates requiring payments by the State Treasurer.

JULY 14, 1909.

Voted, That until the appointment of a Commissioner of Education, or the further order of the Board, Mr. Martin, the acting treasurer of the Board, perform the duties and exercise the powers conferred upon the Commissioner of Education by the rules and regulations of the Board this day adopted as to: —

(*a*) Direction of the agents of the board.

(*b*) Conference with the finance committee.

(*c*) Approval of the appointment and of the salaries of assistant instructors in the normal schools.

(*d*) Preparation of courses of study for the normal schools.

(*e*) Direction and control of teachers' institutes.

The reports cover the following subjects: —

1. Summary of school returns.
2. Medical inspection.
3. Registration of teachers.
4. Teachers' institutes.
5. Kindergartens.
6. Vacation schools.
7. State aid for high schools.
8. School superintendents: certification; list of superintendents; list of union superintendencies.
9. Financial statements.
10. Abstract of school returns.

GEORGE H. MARTIN.

SUMMARY OF STATISTICS FOR 1908–1909.

I. Number of Public Day Schools.

1. Number of towns, 321; cities, 33. Total, 354.
All have made the annual returns required by law.

2. Number of public schools based on the single class room as the unit of comparison,		11,677
Increase from the preceding year,	121	

II. Average Number of Months the Public Schools have been kept.

1. Average number of months the public schools have been kept during the year,		$9\frac{6}{20}$
Decrease,	$\frac{2}{20}$	
2. Average number of months the high schools have been kept during the year,		$9\frac{11}{20}$
Decrease,	$\frac{1}{20}$	

III. School Census Data.

1. Number of persons in the State Sept. 1, 1908, between the ages of seven and fourteen years: males, 196,907; females, 196,534; total,		393,441
Increase in the total,	3,206	
2. Number of persons in the State Sept. 1, 1908, between the ages of five and fifteen years: males, 275,154; females, 273,406; total,		548,560
Increase in the total,	9,906	
3. Number of illiterate minors in the State Sept. 1, 1908, over fourteen years of age: males, 4,097; females, 3,655; total,		7,752
Decrease in the total,	1,221	

IV. Public School Enrollment and Attendance Data.[1]

1. Number of pupils between seven and fourteen years of age attending the public schools during the school year,		338,315
Increase,	2,209	
2. Number of different pupils between five and fifteen years of age attending the public schools during the school year,		468,711
Increase,	5,970	

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[1] The enrollment and attendance data are for a school year ending practically in June, 1908.

3. Number of pupils under five years of age attending the public schools during the school year,		11,587
Increase,	101	
4. Number of pupils over fifteen years of age attending the public schools during the school year,		50,146
Increase,	54	
5. Total enrollment of pupils of all ages in the public schools during the school year,		530,444
Increase,	6,125	
6. Average membership of pupils in all the public schools during the school year,		473,376
Increase,	7,162	
7. Average attendance in all the public schools during the school year,		436,559
Increase,	7,165	
8. Percentage of attendance based on the average membership,		.92
9. Percentage of attendance based on the total enrollment,		.82
10. Number graduated from grammar schools during the school year,		25,278
Increase,	2,965	

V. *Public School Teachers and their Wages.*

1. Number of teachers required in the public schools during the year: men, 1,341; women, 13,752; total,		15,093
Increase,	315	
2. Number of teachers in the public schools who have graduated from college: in high schools, 1,683, in the elementary schools, 485, total,		2,168
Increase,	134	
3. Number of teachers who have graduated from normal schools,		7,724
Increase,	276	
4. Average wages of male teachers per month in the public schools,		$151 39
Decrease,	$4 56	
5. Average wages of female teachers per month in the public schools,		$60 68
Increase,	$1 10	

VI. *Public High Schools.*

1. Number of public high schools,		270
Increase,	4	
2. Number of teachers in the high schools,		2,179
Increase,	106	

3. Number of pupils in the high schools,		53,958
Increase,	2,431	
4. Number of pupils admitted to the freshman class,		20,340
Increase,	1,570	
5. Number of graduates from high schools,		7,806
Increase,	73	
6. Expenditures for high school support,		$3,038,251 60
Increase,	$175,633 79	

VII. Public Evening Schools.

1. Number of cities and towns having public evening schools,		62
Increase,	4	
2. Number of evening schools,		316
Increase,	32	
3. Number of teachers,		1,971
Increase,	65	
4. Number of different pupils in attendance: males, 42,933; females, 21,215; total,		64,148
Increase in total,	14,687	
5. Average attendance,		28,086
Increase,	1,642	
6. Expended upon evening schools,		$346,872 10
Increase,	$34,351 17	

VIII. Public Kindergartens.

1. Number of cities and towns having public kindergartens,		38
Decrease,	1	
2. Number of public kindergartens,		310
Increase,	1	
3. Number of teachers,		533
Decrease,	7	
4. Number of pupils,		17,390
Increase,	133	
5. Cost of public kindergartens,		$328,530 65
Decrease,	$13,189 29	

IX. Cost of the Public Schools for Support.

A. Total expenditure for the *support* of the public schools,			$15,320,085 97
Increase,		$622,311 30	
This expenditure is distributed among the following classes indicated in the statutory definition of support: —			
1. Teachers' wages,		$11,172,187 01	
Increase,	$488,844 33		
2. Conveyance of pupils,		$292,213 33	
Increase,	$26,639 24		

3. Fuel and care of school premises,		$2,043,264 92	
Increase,	$63,245 19		
4. School committees, clerks, truant officers, etc.,		$204,487 35	
Increase,	$3,533 58		
5. Superintendents of schools,		$375,259 09	
Increase,	$7,156 85		
6. Text-books and supplies,		$860,983 33	
Increase,	$83,273 25		
7. School sundries,		$371,690 94	
Decrease,	$50,381 14		
B. Amount included in the total expenditure for *support* as given under *IX*., *A*, but derived from other sources than local taxation or its equivalent, such as aid from the State, income from local funds, voluntary contributions, etc.,			$656,018 29
Increase,		$12,394 28	
C. Amount raised by *local taxation* and expended for the *support* of public schools, being the total expenditure for such support as given under *IX*., *A*, diminished by contributions for such support from other sources than local taxation as given under *IX*., *B*,			$14,664,067 68
Increase,		$609,917 02	

X. Cost of the Public Schools for Buildings.

A. Total expenditure for *buildings* for the public schools,			$4,057,800 47
Increase,		$240,145 40	
This expenditure is distributed as follows: —			
1. New schoolhouses,		$2,701,134 80	
Increase,	$90,702 14		
2. Alterations and permanent improvements,		$819,329 82	
Increase,	$99,928 63		
3. Ordinary repairs,		$537,335 85	
Increase,	$49,514 63		
B. Amount included in the total expenditure for *buildings* for the public schools as given under *X*., *A*, but derived from other sources than local taxation or its equivalent,			$28,468 92
Increase,		$23,520 67	
C. Amount raised by *local taxation* and expended for *buildings*, being the total expenditure for buildings as given under *X*., *A*, diminished by contributions for buildings from other sources than local taxation as given under *X*., *B*,			$4,029,331 55
Increase,		$216,624 73	

XI. Total Cost of the Public Schools for Support and Buildings.

1. Total expenditure for *support* and *buildings*, for the public schools, that is, for all public school purposes, $19,377,886 44
    Increase, ... $862,456 70
2. Amount included in the total expenditure for *support* and *buildings* as given under *IX.*, *A*, and *X.*, *A*, but derived from other sources than local taxation or its equivalent, ... $684,487 21
    Increase, ... $35,914 95
3. Amount raised by *local taxation* and expended for *support* and *buildings*, being the total expenditure for these purposes as given under *IX.*, *A*, and *X.*, *A*, diminished by contributions thereto from other sources than local taxation or its equivalent, as given under *IX.*, *B*, and *X.*, *B*, ... $18,693,399 23
    Increase, ... $826,541 75

XII. Cost of the Public Schools per Child.

1. Average *taxation* cost of the public schools for *support* (*IX.*, *C*) for each child in the state between the ages of five and fifteen years (*III.*, 2), ... $26 73
    Increase, ... $0 64
2. Average *taxation* cost of the public schools for *support* (*IX.*, *C*) for each child in the average membership of the public schools (*IV.*, 6), ... $30 98
    Increase, ... $0 83
3. Average *taxation* cost of the public schools for *support* and *buildings*, that is, for all school purposes (*XI.*, 3), for each child in the State between the ages of five and fifteen years (*III.*, 2), ... $34 08
    Increase, ... $0 91
4. Average *taxation* cost of the public schools for *support* and *buildings*, that is, for all school purposes (*XI.*, 3), for each child in the average membership of the public schools (*IV.*, 6), ... $39 48
    Increase, ... $1 16
5. Average expenditure on account of the public schools for *support* and *buildings*, including *voluntary contributions* as well as money raised by *taxation* (*XI.*, 1), for each child in the State between five and fifteen years of age (*III.*, 2), ... $35 32
    Increase, ... $0 95

6. Average expenditure on account of public schools for *support* and *buildings*, including *voluntary contributions* as well as money raised by *taxation* (*XI.*, 1), for each child in the average membership of the public schools (*IV.*, 6),		$40 93
Increase,	$1 22	

XIII. Percentage of State Valuation expended for Public School Purposes.

1. Percentage of the total State valuation (May 1, 1908) raised by *local taxation* and expended for the *support* of the public schools (*IX.*, *C*),	$.004\frac{8}{100}$ or $4.08 per $1,000
Increase,	$.000\frac{8}{100}$ or $0.08 per $1,000
2. Percentage of the total State valuation (May 1, 1908) raised by *local taxation* and expended on the public schools for *support* and *buildings* (*XI.*, 3),	$.005\frac{3}{100}$ or $5.03 per $1,000
Decrease,	$.000\frac{3}{100}$ or $0.03 per $1,000

XIV. Vacation Schools, 1908.

1. Number of vacation schools supported at public expense,	26
2. Number of cities and towns having vacation schools,	10
3. Number of teachers,	133
4. Number of pupils,	6,983
5. Average number of months schools were kept,	$1\frac{6}{20}$
6. Cost of vacation schools,	$7,834 50

XV. Academies and Private Schools.

1. Number of incorporated academies,		43
Increase,	1	
2. Whole number of pupils in the academies for the year,		6,450
Increase,	378	
3. Amount of tuition paid in the academies during the year,		$703,689 00
Increase,	$21,817 48	
4. Number of private schools returned,		312
Decrease,	32	
5. Whole number of pupils in the private schools during the year,		89,985
Decrease,	1,737	
6. Amount of tuition paid in private schools (much of it estimated),		$668,978 22
Decrease,	$59,289 92	

Medical Inspection.

The returns received at the office of the Board of Education show that of the 321 towns in the State, 281 have complied with the law requiring the appointment of school physicians.

In 31 of the 33 cities school physicians have been employed either by the school committee or by the board of health.

The following cities and towns are without medical inspection of school children: —

Acushnet,
Blackstone,
Boxborough,
Boxford,
Braintree,
Burlington,
Chilmark,
Clarksburg,
Dana,
Edgartown,
Gay Head,
Georgetown,
Gosnold,
Granby,
Holbrook,
Lakeville,
Lowell,
Merrimac,
Middleborough,
Middlefield,
New Braintree,
Newburyport,
New Salem,
North Brookfield,
Norwell,
Otis,
Paxton,
Randolph,
Reading,
Rockland,
Royalston,
Salisbury,
Shrewsbury,
Topsfield,
Truro,
Washington,
Webster,
Westfield,
West Tisbury,
Williamstown,
Wilmington,
Yarmouth. — 42.

The 42 towns and cities reported as not employing school physicians report 33,013 children of all ages in the public schools. This is 6.3 per cent. of the whole number in the schools of the State. Reversing the figures, 93.7 per cent. of all the school children are subject to medical inspection. That this inspection is thorough no one claims, but that it is growing more careful each year is probably true.

Eye and Ear Tests.

The returns received this year contain the results of the third annual tests of sight and hearing as made by the teachers.

In Lee, Otis and Norwell no tests were made, and from Chelsea, Monterey and Reading records of the tests could not be obtained.

The results by counties are given in the following table: —

Eye and Ear Tests.

COUNTIES.	NUMBER OF PUPILS EXAMINED.		DEFECTIVE EYES.		DEFECTIVE EARS.	
	1908.	**1909.**	**1908.**	**1909.**	**1908.**	**1909.**
Barnstable, ...	4,529	4,363	539	617	143	143
Berkshire, ...	14,653	14,100	2,470	2,212	593	532
Bristol, ...	37,957	39,250	6,700	4,472	1,802	3,601
Dukes, ...	752	692	162	93	43	24
Essex, ...	53,252	55,398	9,308	9,124	2,326	2,155
Franklin, ...	6,925	6,997	1,077	1,025	397	319
Hampden, ...	27,458	28,086	4,761	4,811	1,750	1,416
Hampshire, ...	8,650	8,566	1,510	1,199	407	283
Middlesex, ...	93,567	94,873	16,839	15,899	3,902	3,587
Nantucket, ...	–	381	–	15	–	6
Norfolk, ...	27,800	28,849	4,342	3,804	1,254	1,208
Plymouth, ...	21,165[1]	22,046	2,934[1]	2,771	819[1]	679
Suffolk, ...	92,463	88,167	21,950	19,573	6,805	4,280
Worcester, ...	48,264	49,695	8,566	7,514	2,360	1,934
Totals, ...	437,435	441,463	81,158	73,129	22,601	20,167

[1] Exclusive of Hanson.

The number of children examined is larger than the number in either of the previous years; the number found defective is considerably smaller.

In 1907, 22.3 per cent. of those examined were reported as defective in vision and 6.3 per cent. in hearing. In 1908, 18.5 per cent. were reported as defective in vision and 5.1 per cent. in hearing. In 1909, 16.5 per cent. are reported defective in vision and 4.5 per cent. in hearing.

REGISTRATION OF TEACHERS.

In 1906 the Legislature enacted a law requiring the Board of Education to receive and file applications from persons wishing to teach in the public schools of the State, and to furnish superintendents and others such information concerning these applicants as might be in its possession.

A small number of persons have registered each year, — 23 in 1906, 66 in 1907, 65 in 1908, and 44 in 1909. The list is so small and comprises so few persons for any one grade of teaching that superintendents have found it of small service, and have practically ceased to use it. A very few teachers have secured positions by means of it.

If it seems desirable to conduct a teachers' agency through the instrumentality of the Board of Education, a special department will need to be organized and special appropriations secured. To compete with existing teachers' agencies would require an annual outlay of not less than $5,000. Probably much more would be needed if the system were fully developed.

TEACHERS' INSTITUTES.

The statistics of the regular institutes for 1909 are as follows: —

WHERE HELD.	Date.	Number of towns represented.	Number of members.	Number of exercises.
Amherst,[1]	April 16, April 17,	47	165	28
Attleborough, ...	April 16,	10	243	13
Ayer,[2]	Nov. 5,	14	160	9
Chester, ...	May 21,	10	72	8
Cummington, ...	May 20,	9	78	7
Dana, ...	May 18,	7	56	8
Dartmouth, ...	May 7,	3	49	9
Dedham, ...	April 30,	10	295	14
Framingham, ...	April 28,	12	252	16
Georgetown, ...	Oct. 6,	10	111	14
Holden, ...	Jan. 25,	4	48	9
Hyannis, ...	Oct. 8,	15	176	13
Ludlow, ...	Feb. 23,	6	65	10
Oak Bluffs, ...	Sept. 24,	6	38	8
Plymouth, ...	Oct. 1,	13	214	12
Worcester, ...	Jan. 29,	150	485	17
Totals (16), ...	–	326	2,507	195

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[1] High School Teachers' Institute and Educational Conference under direction of State Board of Education, in conjunction with Massachusetts Agricultural College and Head-Masters' Club of Western Massachusetts.

[2] United with the Northwest Middlesex County Teachers' Association meeting.

KINDERGARTENS.

Table showing the number and location of public kindergartens kept during the school year ending in June, 1908, and cost of their maintenance.

CITIES AND TOWNS.	Number of public kindergartens.	Number of teachers.	Number of different pupils.	Minimum age at which pupils are admitted.		Cost.
				Yrs.	Mos.	
Andover,	3	3	114	3	6	$1,813 19
Attleborough,	2	3	91	4	–	1,582 00
Boston,	110	209	7,253	3	6	143,415 05
Braintree,	4	4	122	4	–	1,700 00
Bridgewater,	1	2	44	3	6	1,500 00
Brookline,	11	20	489	3	2	17,105 56
Cambridge,	16	30	915	3	6	18,014 64
Chelsea,	2	2	58	5	–	1,415 00
Chicopee,	2	2	59	3	–	940 00
Dedham,	4	8	143	4	–	2,600 00
Easton,[1]	1	2	57	3	–	725 00
Fall River,	3	6	170	3	–	3,823 25
Falmouth,	1	1	32	4	–	600 00
Framingham,	2	3	77	3	6	1,988 75
Greenfield,	2	2	54	3	6	1,085 00
Haverhill,	10	9	383	3	10	4,750 00
Holyoke,	9	18	592	4	6	9,334 11
Hopedale,	1	1	22	4	–	904 00
Lee,[2]	1	1	34	3	–	600 00
Lowell,	13	25	752	3	6	16,607 20
Manchester,	1	2	41	3	6	800 00
Marblehead,	2	3	106	4	–	1,309 78
Medford,	7	6	282	4	–	2,730 00
Milton,	4	7	180	4	–	4,800 00
New Bedford,	4	8	248	4	–	4,630 00
Newton,	15	30	778	4	–	15,571 51
North Adams,	5	10	204	4	–	4,000 00
Northampton,	6	6	189	4	–	2,455 00
Pittsfield,	3	6	146	4	–	3,076 83
Salem,	6	10	285	4	–	4,531 00
Somerville,	4	8	398	4	–	4,322 00
Springfield,	14	27	1,247	4	–	16,497 97

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[1] Supported by Oakes Ames fund.

[2] Partly supported by private individuals.

Number and location of public kindergartens, etc. — Concluded.

CITIES AND TOWNS.	Number of public kindergartens.	Number of teachers.	Number of different pupils.	Minimum age at which pupils are admitted.		Cost.
				Yrs.	Mos.	
Waltham,	4	7	179	4	6	$4,467 00
Wellesley,	1	2	33	3	–	495 00
Westfield,	4	8	181	4	6	2,000 00
West Springfield,	3	2	139	4	6	887 25
Winchester,	2	4	78	4	–	1,276 31
Worcester,	27	36	1,215	5	–	24,178 25
Totals,	310	533	17,390	3 to 5 yrs.		$328,530 65

VACATION SCHOOLS, 1908.

CITIES AND TOWNS.	NUMBER OF —			Average length of schooling.		Total expenditure for support of schools.
	Schools.	Teachers.	Pupils.	Mos.	Days.	
Athol,	1	4	53	–	15	$35 00
Attleborough,	2	4	141	1	10	280 78
Brookline,	3	13	946	1	10	1,838 40
Cambridge,	6	26	1,368	1	5	1,791 18
Haverhill,	3	26	1,463	1	5	820 33
Lawrence,	5	27	1,942	1	–	954 61
Manchester,	2	2	41	1	5	125 00
Medford,	1	4	128	1	10	200 00
Milford,	1	3	141	1	10	132 00
Newton,	2	24	760	1	10	1,657 20
Totals,	26	133	6,983	1	6	$7,834 50

STATE AID FOR HIGH SCHOOLS.

Towns containing 500 families are required to maintain high schools. Other towns may maintain such schools, and if approved by the Board of Education may receive State aid to the amount of $500.

The following 44 towns, having complied with the conditions, were entitled to receive the $500 grant in 1909. Twenty-six towns received the grant in 1903, 34 in 1904, 36 in 1905, 37 in 1906, 40 in 1907 and 44 in 1908.

Ashby,
Ashfield,
Ashland,
Avon,
Bernardston,
Bolton,
Charlemont,
Charlton,
Chester,
Conway,
Douglas,
Edgartown,
Essex,
Granby,
Hadley,
Huntington,
Littleton,
Lunenburg,
Medfield,
Mendon,
Millis,
New Marlborough,
New Salem,
Northborough,
Northfield,
Norwell,
Orleans,
Pembroke,
Petersham,
Plainville,
Rutland,
Sandwich,
Sheffield,
Shelburne,
Shirley,
Shrewsbury,
Southborough,
Stow,
Sudbury,
Tisbury,
West Boylston,
West Newbury,
Wilmington,
Wrentham. — 44.

Reimbursement for High School Tuition.

Towns having less than 500 families, and not maintaining a high school, must make provision for high school instruction in other towns. They may be reimbursed by the State for one half or for the whole of the cost of such instruction. The high schools to which children are sent must be approved by the Board of Education.

Under the provisions of the law, 98 towns sending 1,130 pupils were reimbursed wholly or in part by the State. The number of towns is one more and the number of pupils 16 more than last year. The amount distributed by the State for their tuition was $41,326.20. The total obligation of the State for high school aid was $63,326.20.

Only 7 towns have no children in high schools. The average membership of all the elementary schools in these towns is 365.

Table showing high school tuition reimbursements under section 3, chapter 42, Revised Laws, as amended by chapter 433, Acts of 1902.

[Note. — Towns the names of which are italicized were reimbursed by the State for half tuition expenditures only.]

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Acushnet, . . .	17	Fairhaven, ...	$75 00	$1,162 00
" . . .	3	New Bedford, ...	75 00	206 63
Alford, . . .	3	Great Barrington (Searles), . .	54 00	144 00
Auburn, . . .	3	Worcester (English), ...	60 00	90 00
" . . .	15	Worcester (South), ...	60 00	360 00
Becket, . . .	1	Springfield (Technical), . . .	100 00	100 00
" . . .	2	Westfield, ...	50 00	100 00
" . . .	9	Chester, ...	56 00	428 40
Bedford, . . .	44	Concord, ...	48 00	816 46
Bellingham, . .	21	Franklin, ...	30 75	186 00
" . . .	12	Milford, ...	38 00	209 00
Berkley, . . .	8	Taunton, ...	50 00	400 00
" . . .	2	Fall River, ...	60 00	89 10
Berlin, . . .	18	Clinton, ...	40 00	705 00
" . . .	1	Northborough, ...	30 00	30 00
" . . .	9	Hudson, ...	40 00	329 00
Blandford, . . .	1	Chester, ...	56 00	56 00
" . . .	3	Westfield, ...	50 00	150 00
" . . .	2	Huntington, ...	45 00	90 00
" . . .	3	Springfield (Technical), . . .	75 00 100 00	390 00
Boxborough, . .	11	Concord, ...	48 00	528 00
" . .	4	Littleton, ...	36 00	144 00
Boylston, . . .	2	Worcester (Classical), ...	60 00	120 00
" . . .	6	Worcester (English), ...	60 00	330 00
" . . .	1	Worcester (South), ...	60 00	60 00
" . . .	6	Clinton, ...	40 00	216 00
" . . .	2	Northborough, ...	30 00	60 00
" . . .	1	West Boylston, ...	40 00	12 00
Buckland, . . .	47	Shelburne Falls (Arms Academy), .	36 00	1,524 00
Carlisle, . . .	7	Concord, ...	48 00	218 68
Cheshire, . . .	26	Adams, ...	30 00	735 00
Chesterfield, . .	2	Springfield (Central), ...	100 00	200 00
Clarksburg, . .	14	North Adams, ...	45 00	600 00

High school tuition reimbursements, etc. — Continued.

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Colrain, . . .	29	Shelburne Falls (Arms Academy), .	$36 00	$1,026 00
" . . .	3	Greenfield, ...	30 00	90 00
Cummington, . .	8	Ashfield, ...	36 00	266 40
" . .	5	Northampton, ...	50 00	250 00
" . .	1	Springfield (Technical), . . .	100 00	100 00
Dana, ...	3	New Salem,.	36 00	102 00
"	8	Petersham, ...	45 00	360 00
"	1	Athol, ...	36 00	36 00
"	8	New Salem,.	30 00	165 00[1]
"	1	Athol, ...	36 00	36 00[1]
"	1	Springfield (Central), . . .	75 00	75 00[1]
"	1	Orange, ...	40 00	29 00[1]
"	7	Petersham, ...	45 00	315 00[1]
Dunstable, . . .	2	Lowell, ...	60 00	120 00
Eastham, . . .	17	Orleans, ...	32 00	517 60
East Longmeadow, .	7	Springfield (Central), . . .	100 00	622 50
" " .	14	Springfield (Technical), . . .	100 00	1,205 00
Egremont, . . .	5	Great Barrington (Searles), . .	54 00	252 00
Enfield, . . .	3	New Salem,.	36 00	78 00
" . . .	15	Athol, ...	36 00	540 00
" . . .	1	Springfield (Central), . . .	100 00	100 00
Erving, . . .	6	Greenfield, ...	30 00	85 50
" . . .	8	Montague (Turners Falls), . . .	30 00	115 00
" . . .	6	Orange, ...	40 00	112 00
Florida, . . .	2	North Adams, ...	45 00	90 00
Freetown, . . .	12	Fall River, ...	60 00	315 00
" . . .	2	New Bedford, ...	75 00	75 00
" . . .	1	Taunton, ...	50 00	25 00
Gay Head, . . .	1	New Bedford, ...	75 00	75 00
Gill, ...	2	Northfield, ...	45 00	90 00
"	8	Montague (Turners Falls), . . .	30 00	221 25
Goshen, . . .	5	Ashfield, ...	36 00	171 90
" . . .	1	Williamsburg (Centre), . . .	26 00	26 00
Granville, . . .	3	Westfield, ...	50 00	81 25
Greenwich, . . .	5	Athol, ...	36 00	154 20
" . . .	2	Springfield (Technical), . . .	100 00	150 00
" . . .	2	New Salem,.	36 00	48 00

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[1] 1907–08.

High school tuition reimbursements, etc. — Continued.

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Halifax, . . .	1	Bridgewater, ...	$50 00	$50 00
Hampden, . . .	5	Springfield (Central), ...	100 00	442 50
" . . .	1	Springfield (Technical), . . .	100 00	100 00
Hancock, . . .	2	Pittsfield, ...	36 00	72 00
Hanson, . . .	14	Whitman, ...	40 00	255 50
" . . .	1	Abington, ...	40 00	20 00
Hawley, . . .	1	Charlemont, ...	45 00	45 00
Heath, . . .	1	Shelburne Falls (Arms Academy), .	36 00	6 00
" . . .	5	Charlemont, ...	45 00	210 00
Hinsdale, . . .	3	Pittsfield, ...	36 00	78 30
" . . .	8	Dalton, ...	30 00	231 25
Hubbardston, . .	5	Gardner, ...	30 00	120 00
" . . .	2	Barre, ...	50 00	100 00
Lakeville, . . .	12	Middleborough, ...	55 00	576 12
" . . .	4	Taunton, ...	50 00	200 00
Lanesborough, . .	8	Pittsfield, ...	36 00	265 50
Leverett, . . .	6	Amherst, ...	35 00	210 00
Leyden, . . .	2	Northfield, ...	45 00	50 63
" . . .	2	Greenfield, ...	30 00	45 00
Longmeadow, . .	14	Springfield (Central), . . .	100 00	642 50
" . .	13	Springfield (Technical), . . .	100 00	565 00
Lynnfield, . . .	1	Peabody, ...	45 00	45 00
" . . .	1	Lynn (English), ...	75 00	75 00
" . . .	20	Wakefield, ...	50 00	890 00
Middlefield, . .	1	Springfield (Central), ...	100 00	100 00
" . .	3	Chester, ...	56 00	168 00
" . .	1	Westfield, ...	50 00	25 00
Middleton, . . .	24	Danvers, ...	50 00	568 75
Monroe, . . .	5	Charlemont, ...	45 00	225 00
Monterey, . . .	2	Great Barrington (Searles), . .	54 00	72 00
Montgomery, . .	1	Westfield, ...	50 00	50 00
" . .	2	Huntington, ...	45 00	90 00
Mt. Washington, .	2	Great Barrington (Searles), . .	54 00	108 00
New Braintree, . .	1	Hardwick, ...	40 00	40 00
" " .	1	North Brookfield, ...	40 00	40 00
Norfolk, . . .	3	Boston (English), ...	95 00	142 50
" . . .	3	Walpole, ...	40 00	60 00

High school tuition reimbursements, etc. — Continued.

TOWNS.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
North Reading,	36	Reading,	$50 00	$1,740 00
Oakham,	4	Barre,	50 00	200 00
Paxton,	3	Worcester (Classical),	60 00	180 00
"	4	Worcester (English),	60 00	210 00
Pelham,	9	Amherst,	35 00	281 75
Phillipston,	1	Petersham,	45 00	45 00
"	3	Athol,	36 00	108 00
"	1	Templeton,	40 00	40 00
Plainfield,	2	Northampton,	50 00	100 00
"	3	Ashfield,	36 00	108 00
Plympton,	5	Kingston,	45 00	225 00
"	1	Whitman,	40 00	40 00
Prescott,	3	New Salem,	36 00	60 00
Princeton,	1	Worcester (South),	60 00	30 00
Raynham,	12	Taunton,	50 00	580 00
"	1	Brockton,	75 00	75 00
"	3	Easton,	40 00	83 00
Rehoboth,	6	Taunton,	50 00	143 13
"	2	Attleborough,	50 00	48 75
"	1	Fall River,	60 00	30 00
Richmond,	6	Pittsfield,	36 00	205 20
Rochester,	6	Fairhaven,	75 00	390 00
"	6	Wareham,	45 00	270 00
"	1	Middleborough,	55 00	55 00
"	1	Amherst,	35 00	35 00
Rowe,	1	North Adams,	45 00	30 00
"	1	Concord,	48 00	48 00
"	2	Charlemont,	45 00	90 00
Rowley,	5	Newburyport,	48 00	240 00
"	17	Ipswich,	40 00	632 00
Royalston,	4	Athol,	36 00	130 20
"	2	Templeton,	40 00	80 00
Russell,	1	Springfield (Technical),	100 00	100 00
"	1	Westfield,	50 00	50 00
"	4	Huntington,	45 00	148 50
Salisbury,	9	Newburyport,	12 00[1] 15 00[1]	57 00
Savoy,	1	Adams,	30 00	30 00

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[1] Foreign languages only.

High school tuition reimbursements, etc. — Continued.

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Seekonk, . . .	5	Attleborough, ...	$50 00	$125 00
" . . .	5	Taunton, ...	50 00	125 00
" . . .	4	Fall River, ...	60 00	120 00
Shutesbury, . .	5	Amherst, ...	35 00	131 38
Southampton, . .	2	Northampton, ...	50 00	100 00
" . .	11	Easthampton, ...	45 00	435 00
Southwick, . . .	15	Westfield, ...	50 00	622 50
Sterling, . . .	1	Worcester (English), ...	60 00	30 00
Sturbridge, . . .	11	Southbridge, ...	30 00	157 50
Sunderland, . .	20	Amherst, ...	35 00	654 50
Swansea, . . .	27	Fall River, ...	60 00	745 00
Tewksbury, . . .	32	Lowell, ...	60 00	920 00
Truro, . . .	6	Provincetown, ...	40 00	240 00
" . . .	1	Wellfleet, ...	40 00	28 00
Tyngsborough, . .	10	Lowell, ...	60 00	600 00
Tyringham, . .	3	Lee, ...	50 00	150 00
Warwick, . . .	3	Northfield, ...	45 00	135 00
" . . .	7	Orange, ...	40 00	232 00
Washington, . .	2	Chester, ...	56 00	88 20
Wendell, . . .	4	Orange, ...	40 00	120 00
" . . .	1	New Salem, ...	36 00	36 00
West Bridgewater, .	1	Easton, ...	40 00	16 00
West Brookfield, . .	30	Warren, ...	30 00	429 75
Westminster, . .	2	Fitchburg, ...	48 00	96 00
" . .	1	Gardner, ...	30 00	8 47
West Stockbridge, .	9	Pittsfield, ...	36 00	290 70
" " .	9	Great Barrington (Searles), . .	54 00	468 00
West Tisbury, . .	4	Tisbury (Vineyard Haven), . .	40 00	160 00
Whately, . . .	1	Springfield (Technical), . . .	100 00	100 00
" . . .	7	Northampton, ...	50 00	350 00
" . . .	1	Greenfield, ...	30 00	30 00
" . . .	2	Williamsburg (Central), . . .	26 00	52 00
Wilbraham, . . .	2	Springfield (Technical), . . .	100 00	100 00
" . . .	2	Palmer, ...	35 00	35 00
" . . .	4	Ludlow, ...	40 00	80 00
Williamsburg, . .	8	Northampton, ...	50 00	200 00
Windsor, . . .	1	Adams, ...	30 00	30 00
" . . .	1	Ashfield, ...	36 00	36 00

High school tuition reimbursements, etc. — Concluded.

TOWNS.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Windsor, . . .	6	Dalton, ...	$30 00	$161 25
Worthington, . .	1	Northampton, ...	50 00	50 00
" . . .	1	Worcester, ...	60 00	25 00
Totals (98 towns), .	1,130	73 schools, ...	$46 60	$41,326 20

Towns having a valuation per pupil in *excess* of the State average ($7,534): —

Burlington,
Boxford (Academy),
Chilmark,
Dover (High),
Gosnold,
Hamilton,
Harvard (High),
Hopedale (High),
Hull,
Lincoln,
Mattapoisett,
Marion (Academy),
Nahant (High),
Oak Bluffs (High),
Sharon,
Stockbridge (High),
Tolland,
Topsfield (High),
Wellfleet (High),
Wenham,
Weston (High),
Westwood,
Yarmouth (High).—23

Towns that *did not avail* themselves of the law: —

Ashburnham (Academy),
Brewster (High),
Brimfield (Academy),
Carver (High),
Deerfield (Academy),
Hatfield (Academy),
Holland,
Mashpee,
New Ashford,
Newbury,
Otis,
Peru,
Sandisfield,
Sherborn (Academy),
Wales,
Westhampton. — 16

EXAMINATION FOR CERTIFICATES OF APPROVAL AS SUPERINTENDENTS.

The law making the approval of the Board of Education a condition of eligibility for service in a State-aided union was passed in 1904. Examinations have been held each year since, with the following results: —

Approved in 1904, ...	7
Approved in 1905, ...	14
Approved in 1906, ...	23
Approved in 1907, ...	15
Approved in 1908, ...	10
Approved in 1909, ...	21
Total, ...	90

Of these, 36 have entered the service and are now at work.

List of superintendents, alphabetically arranged, with their superintendencies.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Adams, Charles F., . .	$1,600	Spencer, . . .	Spencer.
Aldrich, George I., . .	4,000	Brookline, . . .	Brookline.
Allen, H. L., . . .	1,650	Dalton, . . .	Cheshire, Dalton.
Allison, J. Francis, . .	1,750	Great Barrington, .	Great Barrington.
Anthony, John C., . .	2,200	Melrose, . . .	Melrose.
Armstrong, George P., .	2,400	Belmont, . . .	Belmont, Lexington.
Atwell, F. G., . . .	1,700	Hopedale, . . .	Bellingham, Hopedale, Mendon.
Averill, Andrew P., . .	1,600	Edgartown, . .	Chilmark, Edgartown, Gay Head, Oak Bluffs, Tisbury, West Tisbury.
Bagnall, Francis A., . .	2,500	Adams, . . .	Adams.
Barbour, Albert L., . .	2,400	Quincy, . . .	Quincy.
Bates, Charles H., . .	2,000	Middleborough, .	Middleborough.
Bemis, George M., . .	1,700	Plainville, . . .	Norton, Plainville, Wrentham.
Benedict, Frank H., . .	1,500	Sutton, . . .	Auburn, Sutton.
Bliss, Don C., . . .	3,000	Brockton, . . .	Brockton.
Blodgett, Samuel F., .	2,000	South Framingham, .	Framingham.
Bowman, Mortimer H., .	1,500	Hatfield, . . .	Bernardston, Hadley, Hatfield.
Breck, Charles A., . .	1,300	Methuen, . . .	Methuen.
Brick, Francis S., . .	1,650	Maynard, . . .	Boxborough, Maynard, Stow.
Bridgham, E. G., . .	1,500	Lenox, . . .	Lenox.
Briggs, Arthur P., . .	1,600	Chelmsford, . .	Carlisle, Chelmsford, Dunstable.
Brittain, Horace L., . .	2,500	Hyde Park, . .	Hyde Park.
Brockway, Clarence E., .	1,800	West Springfield, .	West Springfield.
Brooks, John D., . .	1,600	Natick, . . .	Natick.
Brooks, Stratton D., .	6,000	Boston, . . .	Boston.
Burke, J. E., Ass't, . .	4,500	Boston, . . .	Boston.
Byram, Charles A., . .	2,500	Pittsfield, . . .	Pittsfield.
Carfrey, J. H., . .	2,000	Wakefield, . .	Lynnfield, Wakefield.
Caswell, Almorin O., .	1,800	Marblehead, . .	Marblehead.
Chace, Seth Howard, .	2,000	97 18th Street, Lowell,	Dracut, North Reading, Tewksbury, Tyngsborough.
Chaffin, W. E., . . .	1,600	Egypt, . . .	Duxbury, Marshfield, Scituate.
Chapman, Ira T., . .	2,000	Millbury, . . .	Millbury, Oxford.
Clapp, George I., . .	2,000	Woburn, . . .	Woburn.
Clark, Charles S., . .	3,000	Somerville, . .	Somerville.
Cobb, Edwin S., . .	1,650	Uxbridge, . . .	Douglas, Uxbridge.
Coggins, William L., .	1,500	Rockland, . . .	Rockland.
Cole, Albert S., . .	1,700	North Dartmouth, .	Dartmouth, Westport.
Congdon, F. K., . .	2,200	Northampton, . .	Northampton.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

Superintendents.	Salaries.	Addresses.	Superintendencies.
Corbin, F. E.,[1]	$2,100	Southbridge,	Southbridge.
Cox, George W.,	2,000	Ware,	Ware.
Cragin, William N.,	1,800	Bedford,	Bedford, Burlington, Wilmington.
Davis, John C.,	1,500	Dighton,	Berkley, Dighton, Rehoboth.
Davison, F. P.,	1,800	Turners Falls,	Montague.
DeMeyer, John E.,	1,800	Abington,	Abington, Bridgewater.
Dempsey, Clarence H.,	2,300	Revere,	Revere.
Dixon, Edward,	1,700	Orange,	Orange.
Douglas, Frank A.,[2]	2,100	Winthrop,	Winthrop.
Drew, Frank,	1,500	Granville,	Granville, Sandisfield, Southwick, Tolland.
Durfee, Everett B.,	3,000	Fall River,	Fall River.
Eaton, Charles M.,[1]	2,200	Weston,	Weston.
Edgerly, Joseph G.,	2,700	Fitchburg,	Fitchburg.
Eldredge, William F.,	1,200	Rockport,	Rockport.
Ellinwood, George F.,	1,500	Whitman,	Whitman.
Emery, S. H.,	500	Stockbridge,	Stockbridge.
Erskine, Samuel H.,[1]	2,000	Lancaster,	Lancaster.
Fales, Lewis A.,	2,100	Attleborough,	Attleborough.
Ferguson, C. C.,	1,550	West Brookfield,	New Braintree, Sturbridge, West Brookfield.
Fish, Charles E.,	1,800	Amesbury,	Amesbury, Merrimac.
Fitts, Edward P.,	1,800	Mansfield,	Mansfield, Sharon, Stoughton.
Fittz, Austin H.,	1,800	Norwood,	Norwood.
Freeman, L. A.,	1,700	93 Comstock Avenue, Providence, R. I.	Seekonk, Somerset, Swansea.
Frost, Gaius B.,	1,500	Georgetown,	Georgetown, Groveland, Rowley.
Fuller, Robert J.,	1,975	North Attleborough,	North Attleborough.
Galger, George H.,	1,700	Hyannis,	Barnstable.
Gamwell, Irving H.,	1,334	Franklin,	Franklin.
Goodhue, E. W.,	1,500	Haydenville,	Chesterfield, Williamsburg, Worthington.
Gordy, Wilbur F.,	4,000	Springfield,	Springfield.
Gray, John C.,	2,000	Chicopee,	Chicopee.
Gray, Lee T.,[1]	2,000	Palmer,	Palmer.
Gregory, B. C.,	2,800	Chelsea,	Chelsea.
Grout, Edgar H.,	1,500	East Bridgewater,	East Bridgewater, Raynham, West Bridgewater.
Grover, G. Alvin,	1,500	North Dana,	Dana, Greenwich, New Salem, Prescott.
Gruver, Harvey S.,[3]	1,200	Walpole,	Walpole.
Gushee, Walter E.,	1,600	Ludlow,	Agawam, Ludlow.
Haley, C. W.,	1,800	Milford,	Milford.

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[1] Also principal of high school.
[2] Also principal of grammar school.
[3] Three days per week for nine months.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

Superintendents.	Salaries.	Addresses.	Superintendencies.
Hall, I. Freeman,	$2,500	North Adams,	North Adams.
Hall, Wells A.,[1]	2,000	Concord,	Concord.
Hardy, A. L.,	1,950	Amherst,	Amherst, Pelham.
Harris, Charles A.,	1,550	Holliston,	Holliston, Medway, Sherborn.
Harrub, H. W.,	2,400	Taunton,	Taunton.
Hayes, James S.,	1,500	Rockland,	Hanover, Hanson, Norwell.
Haynes, Edwin L.,	1,600	Townsend,	Ashby, Lunenburg, Townsend.
Heald, A. A.,	1,750	Wareham,	Marion, Wareham.
Heavens, Francis J.,	2,000	Plymouth,	Plymouth.
Herron, Schuyler F.,	2,300	Winchester,	Winchester.
Hervey, Henry D.,	2,700	Malden,	Malden.
Hicks, Bion E.,	1,500	Lee,	Lee, Monterey, Otis, Tyringham.
Hine, Roderick W.,	2,200	Dedham,	Dedham.
Howard, Elmer F.,	1,625	East Northfield,	Gill, Leyden, Northfield, Warwick.
Howard, Nelson G.,	2,350	Hingham Center,	Cohasset, Hingham, Hull.
Howes, Alfred F.,	1,500	Sheffield,	Mount Washington, New Marlborough, Sheffield.
Humphrey, Chester W.,	1,500	Rochester,	Carver, Lakeville, Rochester.
Hunt, Charles L.,	2,000	Clinton,	Clinton.
Hutchinson, S. C.,	1,700	Andover,	Andover.
Jacoby, Asher J.,	2,700	East Milton,	Milton.
Jenkins, Ira A.,[1]	1,500	Falmouth,	Falmouth.
Johnson, Frank C.,	2,000	Ayer,	Ayer, Boylston, Shirley, West Boylston.
Johnson, William F.,	2,000	Wellesley Hills,	Wellesley.
Jones, Asa M.,	1,600	Charlemont,	Charlemont, Florida, Hawley, Heath, Monroe, Rowe.
Judkins, Clarence L.,	1,600	Ashfield,	Ashfield, Cummington, Goshen, Plainfield.
Keith, Allen P.,	3,000	New Bedford,	New Bedford.
Kennedy, Ambrose,	888	Blackstone,	Blackstone.
Knox, Herman N.,	1,600	Provincetown,	Provincetown, Truro, Wellfleet.
Lea, Watson C.,	1,500	Holbrook,	Avon, Holbrook, Randolph.
Lewis, Alvan R.,	1,500	Belchertown,	Belchertown, Enfield.
Lewis, Homer P.,	4,000	Worcester,	Worcester.
Lewis, Mary A., Ass't,	1,350	Cambridge,	Cambridge.
Lincoln, Mary L.,	1,100	Nantucket,	Nantucket.
Loring, Everett G.,	1,650	Kingston,	Halifax, Kingston, Pembroke, Plympton.
Lyman, C. S.,	2,000	Hudson,	Hudson, Lincoln.
Mackin, John C.,	1,650	Manchester,	Manchester.

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[1] Also principal of high school.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Manning, John H.,	$1,550	Groton,	Groton.
Marsh, Frank M.,	2,250	Fairhaven,	Acushnet, Fairhaven, Mattapoisett.
Marston, John P.,[1]	2,200	Ipswich,	Ipswich.
Mason, Wallace E.,[1]	2,100	North Andover,	North Andover.
Melcher, S. A.,[1]	2,350	Whitinsville,	Northbridge.
Merriam, Burr J.,	1,500	Brookfield,	Brookfield, North Brookfield.
Merrill, Leon O.,	1,500	Huntington,	Blandford, Huntington, Montgomery, Russell.
Miller, W. D.,	1,700	Easthampton,	Easthampton, Southampton, Westhampton.
Millington, W. H.,	1,600	Foxborough,	Foxborough, Freetown.
Minard, George C.,	1,500	Hopkinton,	Ashland, Hopkinton.
Mitchell, Walter G.,	1,200	Williamstown,	Williamstown.
Morrill, Alfred B.,	1,500	Leicester,	Charlton, Leicester.
Morton, O. A.,	2,100	Marlborough,	Marlborough.
Nickerson, Fred H.,	2,800	Medford,	Medford.
Nims, Wesley E.,	1,500	Warren,	Holland, Wales, Warren.
Oldham, J. R. D.,	1,500	Sandwich,	Bourne, Mashpee, Sandwich.
Parker, Walter S., Ass't,	4,500	Boston,	Boston.
Parkinson, William D.,	2,500	Waltham,	Waltham.
Parlin, Frank E.,	3,500	Cambridge,	Cambridge.
Paull, A. R.,	1,600	East Pepperell,	Bolton, Harvard, Pepperell.
Pearson, Parker T.,	1,800	Weymouth,	Weymouth.
Peaslee, Frank J.,	3,000	Lynn,	Lynn.
Pelo, William J.,	1,000	Swampscott,	Swampscott.
Perkins, James S.,	1,800	Canton,	Canton.
Perkins, John W.,	2,500	Salem,	Salem.
Poland, Mary L.,	1,600	15 Myrtle Street, Springfield.	East Longmeadow, Hampden, Longmeadow, Wilbraham.
Pope, Frederic S.,	1,700	North Easton,	Easton.
Price, Wilfred H.,	1,850	Watertown,	Watertown.
Prior, Charles F.,	1,500	Cochituate,	Dover, Sudbury, Wayland.
Putney, Freeman,	2,300	Gloucester,	Gloucester.
Putney, Walter K.,	1,200	Needham,	Needham.
Rafter, Augustine L., Ass't,	4,500	Boston,	Boston.
Randall, Charles L.,	1,500	Holden,	Holden, Oakham, Paxton, Rutland.
Record, C. A.,	2,300	Haverhill,	Haverhill.
Richards, Clinton J.,	1,500	West Newbury,	Boxford, Newbury, Salisbury, Topsfield, West Newbury.
Richardson, Herbert E.,	2,000	Greenfield,	Greenfield.

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[1] Also principal of the high school.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Riley, John L.,	$3,000	Holyoke,	Holyoke.
Riley, William E.,	1,550	Hinsdale,	Hinsdale, Peru, Savoy, Windsor.
Ripley, Mrs. Ellor E., Ass't,	4,500	Boston,	Boston.
Robinson, Albert,	1,800	Peabody,	Peabody.
Robinson, Ernest W.,	2,100	Webster,	Dudley, Webster.
Rugg, George,	1,500	38 Somerset Street, Worcester.	Princeton, Sterling, Westminster.
Safford, Adelbert L.,	2,200	Beverly,	Beverly.
Sanborn, Henry C.,	1,800	Danvers,	Danvers.
Sanderson, W. H.,	1,600	Chester,	Becket, Chester, Middlefield, Washington.
Scully, John F.,	2,500	Arlington,	Arlington.
Sheridan, Bernard M.,	3,500	Lawrence,	Lawrence.
Sims, William F.,	1,800	Northborough,	Berlin, Northborough, Shrewsbury, Southborough.
Simmons, Charles L.,	2,400	Westfield,	Westfield.
Small, Alberto W.,	1,500	Baldwinville,	Hubbardston, Phillipston, Royalston, Templeton.
Small, Robert O.,	2,000	Grafton,	Grafton, Upton.
Spaulding, Frank E.,	5,000	Newtonville,	Newton.
Stacy, Chester R.,	1,500	Yarmouthport,	Brewster, Dennis, Yarmouth.
Stearns, Mrs. Cora A.,	1,500	Wendell Depot,	Erving, Leverett, Shutesbury, Wendell.
Stevens, Charles E.,	2,200	Stoneham,	Billerica, Stoneham.
Stiles, Chester D.,	1,600	South Deerfield,	Conway, Deerfield, Sunderland, Whately.
Stone, Melville A.,	1,500	Shelburne Falls,	Buckland, Colrain, Shelburne.
Thompson, Thomas E.,	2,200	Leominster,	Leominster.
Thomson, Andrew S.,	1,600	South Hamilton,	Essex, Hamilton, Middleton, Wenham.
Tirrell, Edwin S.,	1,425	Nahant,	Nahant.
Tower, Alfred O.,	1,600	Barre,	Barre, Hardwick, Petersham.
Van Ornum, F. B.,	1,500	Cheshire,	Clarksburg, Hancock, Lanesborough, New Ashford.
Waldron, H. C.,[1]	1,800	Westborough,	Westborough.
Ward, W. Scott,	2,000	Athol,	Athol.
Watkins, Harry T.,	3,000	Reading,	Reading.
Webber, Arthur B.,	1,600	Littleton,	Acton, Littleton, Westford.
West, M. J.,	1,600	Millis,	Medfield, Millis, Norfolk, Westwood.
Wheeler, Frederic A.,	1,500	Monson,	Brimfield, Monson.
Wheeler, U. G.,	2,800	Everett,	Everett.
Whitcomb, Arthur K.,	3,000	Lowell,	Lowell.
White, Maurice P., Ass't,	4,500	Boston,	Boston.
Whitney, Fairfield,	1,500	Saugus,	Saugus.

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[1] Also principal of high school.

List of superintendents, alphabetically arranged, with their superintendencies — Concluded.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Whittemore, F. E.,	$1,750	South Hadley Falls,	Granby, South Hadley.
Wiggin, Ralph L.,	1,600	Braintree,	Braintree.
Willard, Edgar L.,	1,700	Newburyport,	Newburyport.
Williams, F. F.,	1,500	West Stockbridge,	Alford, Egremont, Richmond, West Stockbridge.
Williams, Loring G.,	1,500	Harwich,	Chatham, Eastham, Harwich, Orleans.
Willson, Myron J.,	1,800	Winchendon,	Ashburnham, Winchendon.
Wood, Judson I.,	2,100	Gardner,	Gardner.
(Total, 189.)			

Union Superintendencies.

Number.	UNIONS.	When formed.	Valuation of assessed estate, May 1, 1908.	No. of schools, 1907–1908.	EACH TOWN'S SHARE OF SUPERINTENDENT'S —		State aid to each town.	Superintendent's salary.	When union superintendency year begins.	JOINT COMMITTEE.	
					Service.	Salary.				Chairman.	Secretary.
1	Duxbury,	1888	$2,298,460	10	1/3	$250 00	$416 66	$1,600 00	June 1,	Dr. Nathaniel K. Noyes, Duxbury.	Clara M. Skeele, Scituate.
	Marshfield,	1888	1,864,655	10	1/3	250 00	416 66				
	Scituate,	1888	4,154,615	12	1/3	250 00	-				
2	Hubbardston,	1889	690,300	8	2/10	150 00	250 00	1,600 00	July 1,	Frederick P. Stone, Otter River (Templeton).	Mrs. Rose E. Coleman, Templeton.
	Phillipston,	1889	277,396	4	1/10	75 00	125 00				
	Royalston,	1889	499,420	7	2/10	150 00	250 00				
	Templeton,	1889	1,594,837	16	5/10	375 00	625 00				
3	Ashland,	1889	1,175,055	10	2/5	300 00	500 00	1,600 00	July 1,	George L. Hemenway, Hopkinton.	Chas. A. Wight, Ashland.
	Hopkinton,	1889	1,546,105	13	3/5	450 00	750 00				
4	Easthampton,	1889	5,261,328	30	12 days.	450 00	-	1,600 00	July 1,	Rev. Franz Willer, Easthampton.	Chas. M. Loud, Westhampton.
	Southampton,	1889	492,904	8	5 days.	187 50	312 50				
	Westhampton,	1889	224,725	6	3 days.	112 50	187 50				
5	Barre,	1890	1,738,200	13	2/5	300 00	500 00	1,600 00	May 1,	Dr. George A. Brown, Barre,	Chas. O. Flagg, Hardwick.
	Hardwick,	1890	1,723,165	14	2/5	300 00	500 00				
	Petersham,	1890	857,156	6	1/5	150 00	250 00				
6	Berlin,	1890	559,054	5	1/7	107 40	179 00	1,800 00	May 1,	H. A. Wheeler, Berlin,	Edwin S. Corey, Northborough.
	Northborough,	1890	1,326,805	9	2/7	214 20	357 00				
	Shrewsbury,	1890	1,495,513	12	2/7	214 20	357 00				
	Southborough,	1890	1,766,113	9	2/7	214 20	357 00				
7	Becket,	1890	485,075	7	119/500	178 50	297 50	1,600 00	July 1,	James H. Keefe, Chester,	Howard R. Molineux, Becket.
	Chester,	1890	678,687	11	251/500	376 50	627 50				
	Middlefield,	1890	188,732	7	86/500	129 00	215 00				
	Washington,	1890	277,813	5	44/500	66 00	110 00				
8	Brimfield,	1890	506,092	6	3/10	225 00	375 00	1,500 00	April 30,	Rev. Samuel Eaton, Brimfield.	J. C. Parsons, Monson.
	Monson,	1890	1,776,218	23	7/10	525 00	875 00				

9	Princeton, . . .	1890	1,041,363	8	⅕	150 00	250 00	1,500 00	July 1,	Mary A. Dupee, Westminster,	Mrs. Katherine T. Dutton, Dunstable.
	Sterling, . . .	1890	988,335	10	⅖	300 00	500 00				
	Westminster, . .	1890	771,255	11	⅖	300 00	500 00				
10	Mansfield, . . .	1891	2,996,578	21	2 days.	300 00	500 00	1,800 00	April 9,	S. Frederick French, Mansfield.	Joseph MacDonald, Stoughton.
	Sharon, . . .	1891	2,576,970	11	1 day.	150 00	250 00				
	Stoughton, . .	1891	3,507,085	23	2 days.	300 00	500 00				
11	Dracut, . . .	1891	2,297,999	16	5/10	375 00	625 00	2,000 00	Sept. 8,	Lucian C. McLoon, Tyngsborough.	Ophelia S. Brown, Tyngsborough.
	North Reading, .	1891	676,639	4	1/10	75 00	125 00				
	Tewksbury, . .	1891	1,145,979	6	3/10	225 00	375 00				
	Tyngsborough, .	1891	524,680	5	1/10	75 00	125 00				
12	Brookfield, . .	1891	1,272,580	16	½	375 00	625 00	1,500 00	July 1,	Anson P. Goodell, Brookfield,	Arthur C. Bliss, North Brookfield.
	North Brookfield, .	1891	1,589,980	10	½	375 00	625 00				
13	Grafton, . . .	1891	2,674,645	20	¾	562 50	937 50	1,900 00	July 1,	Francis M. McGarry, Grafton,	Appleton P. Williams, West Upton.
	Upton, . . .	1891	1,102,808	9	¼	187 50	312 50				
14	Millbury, . . .	1891	2,300,185	19	⅗	450 00	750 00	1,800 00	Aug. 1,	Herbert V. Chaffee, Oxford, .	Edward T. Hull, Millbury.
	Oxford, . . .	1891	1,869,165	19	⅖	300 00	500 00				
15	Abington, . . .	1891	2,797,393	19	½	375 00	625 00	2,200 00	Aug. 1,	Richard B. Rand, North Abington.	J. Gardner Bassett, Bridgewater.
	Bridgewater, . .	1891	3,254,972	25	½	375 00	625 00				
16	Buckland, . . .	1892	697,492	9	3/10	225 00	375 00	1,500 00	April 24,	Herbert Newell, Shelburne Falls.	Jonathan E. Davenport, Colrain.
	Colrain, . . .	1892	647,905	15	4/10	300 00	500 00				
	Shelburne, . .	1892	1,116,207	10	3/10	225 00	375 00				
17	Bourne, . . .	1892	3,391,500	11	9/20	337 50	562 50	1,500 00	July 1,	Chas. M. Thompson, Sandwich.	Anna M. Starbuck (Bournedale), Bourne.
	Mashpee, . . .	1892	200,540	2	2/20	75 00	125 00				
	Sandwich, . .	1892	1,000,250	8	9/20	337 50	562 50				
18	East Bridgewater, .	1892	1,965,410	16	9 days.	350 00	583 33	1,500 00	May 20,	Wm. H. Taylor, East Bridgewater.	Samuel K. Nutter, East Bridgewater.
	Raynham, . . .	1892	753,622	8	4 days.	150 00	250 00				
	West Bridgewater, .	1892	1,221,718	12	7 days.	250 00	416 67				
19	Brewster,[1] . .	1903	526,585	4	4/26	115 39	192 32	1,500 00	July 5,	Edmund W. Eldridge, Yarmouth.	Edwin H. Howes, Dennis.
	Dennis, . . .	1892	1,189,680	13	13/26	375 00	625 00				
	Yarmouth, . .	1892	2,029,911	9	9/26	259 61	432 68				
20	Holland,[2] . .	1902	100,297	1	1/20	37 50	62 50	1,600 00	Aug. 1,	Dr. Chas. A. De Land, Warren.	Carl M. Blair, Warren.
	Wales, . . .	1893	286,698	4	3/20	112 50	187 50				
	Warren, . . .	1893	1,896,849	15	16/20	600 00	1,000 00				

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[1] Added Oct. 17, 1903, by decree of State Board of Education.

[2] Added in 1902.

Union Superintendencies — Continued.

Number.	UNIONS.	When formed.	Valuation of assessed estate, May 1, 1908.	No. of schools, 1907–1908.	EACH TOWN'S SHARE OF SUPERINTENDENT'S —		State aid to each town.	Superintendent's salary.	When union superintendency year begins.	JOINT COMMITTEE.	
					Service.	Salary.				Chairman.	Secretary.
21	East Longmeadow,	1893	$674,575	10	10/33	$227 27	$378 79	$1,600 00	July 1,	Oliver Louis Wolcott, East Longmeadow.	Horace G. Webber, Wilbraham.
	Hampden, . .	1893	384,050	6	6/33	136 36	227 27				
	Longmeadow, .	1893	1,220,655	5	5/33	113 64	189 39				
	Wilbraham, . .	1893	1,083,808	12	12/33	272 73	454 55				
22	Dartmouth, . .	1893	3,419,125	26	½	375 00	625 00	1,700 00	Sept. 1,	David S. Wordell, South Dartmouth.	Frank G. Macomber, Westport.
	Westport, . .	1893	1,707,900	17	½	375 00	625 00				
23	Hanover, . .	1894	1,444,355	11	⅓	250 00	416 67	1,500 00	May 1,	Dr. Clarence L. Howes, Hanover.	Mrs. Mary E. Curtis, Norwell.
	Hanson, . . .	1894	1,279,150	9	⅓	250 00	416 67				
	Norwell, . . .	1894	866,993	7	⅓	250 00	416 66				
24	Cheshire, . .	1894	749,664	8	3/10	225 00	375 00	1,500 00	April 10,	George Z. Dean, Cheshire, .	Payson E. Little, Dalton.
	Dalton, . . .	1894	3,504,705	17	7/10	525 00	875 00				
25	Provincetown, .	1894	2,066,450	20	23/33	522 73	871 21	1,600 00	Sept. 1,	A. T. Williams, Provincetown,	John B. Dyer, Truro.
	Truro,[1] . . .	1902[1]	386,795	5	5/33	113 64	189 40				
	Wellfleet, . .	1894	980,955	5	5/33	113 63	189 39				
26	Norton, . . .	1894	1,127,150	11	4/10	300 00	500 00	1,700 00	May 1,	Elbridge J. Whitaker, Wrentham.	W. C. S. Wood, Norton.
	Plainville,[2] . .	1905	749,947	6	3/10	225 00	375 00				
	Wrentham, . .	1894	1,190,364	8	3/10	225 00	375 00				
27	Bellingham, . .	1894	813,647	10	⅓	250 00	416 66	2,000 00	May 28,	Henry W. Gaskill, Mendon, .	Frank J. Dutcher, Hopedale.
	Hopedale, . .	1894	5,193,882	12	⅓	250 00	–				
	Mendon, . . .	1894	648,450	6	⅓	250 00	416 66				
28	Chatham,[3] . .	1903	1,147,525	9	9/27	250 00	416 67	1,650 00	Oct. 1,	Thomas H. Nickerson, Harwich.	George S. Hall, Orleans.
	Eastham, . .	1894	347,711	2	2/27	55 56	92 60				
	Harwich, . .	1894	1,186,519	12	12/27	333 33	555 55				
	Orleans, . . .	1894	614,185	4	4/27	111 11	185 18				
29	Granby, . . .	1895	493,858	5	¼	187 50	312 50	1,750 00	April 1,	George S. Lyman, South Hadley.	Mrs. Ada W. Gray, Granby.
	South Hadley, .	1895	2,704,463	24	¾	562 50	937 50				

30	Gill,	1895	452,117	6	1/5	150 00	250 00	1,600 00	May 7,	L. R. Smith, East Northfield,	Mrs. Nellie M. Wood, Northfield.
	Leyden,[4]	1901	171,966	4	1/5	150 00	250 00				
	Northfield,	1895	1,241,834	9	2/5	300 00	500 00				
	Warwick,	1895	374,150	4	1/5	150 00	250 00				
31	Chilmark,[5]	1897	289,933	2	2/20	75 00	125 00	1,600 00	July 1,	W. Channing Nevin, Edgartown.	Anson M. Luce, North Tisbury.
	Edgartown,	1895	1,009,340	5	4/20	150 00	250 00				
	Gay Head,[1]	1902	32,464	1	1/20	37 50	62 50				
	Oak Bluffs,	1895	1,806,075	6	5/20	187 50	312 50				
	Tisbury,	1895	1,401,516	6	5/20	187 50	312 50				
	West Tisbury,	1895	534,787	4	3/20	112 50	187 50				
32	Georgetown,	1895	1,031,685	8	2/5	300 00	500 00	1,500 00	Sept. 1,	Albert L. Wales, 16 King Street, Groveland.	Frank E. Richardson, Rowley.
	Groveland,	1895	1,165,064	12	2/5	300 00	500 00				
	Rowley,	1895	748,554	8	1/5	150 00	250 00				
33	Carlisle,	1896	441,445	3	1/10	75 00	125 00	1,600 00	Aug. 1,	Herbert E. Ellis, Chelmsford,	Arthur M. Hall, Dunstable.
	Chelmsford,	1896	4,088,385	26	8/10	600 00	1,000 00				
	Dunstable,	1896	298,642	3	1/10	75 00	125 00				
34	Holliston,	1896	1,575,757	13	2 days.	300 00	500 00	1,500 00	Sept. 1,	Norman B. Douglas, Sherborn.	A. W. Coombs, West Medway.
	Medway,	1896	1,345,985	12	2 days.	300 00	500 00				
	Sherborn,	1896	1,410,381	7	1 day.	150 00	250 00				
35	Acushnet,	1897	680,120	7	1/6	125 00	208 33	2,100 00	July 1,	Daniel W. Deane, Fairhaven,	John T. Atsatt, Mattapoisett.
	Fairhaven,	1897	2,987,822	23	4/6	500 00	833 34				
	Mattapoisett,	1897	1,592,085	7	1/6	125 00	208 33				
36	Charlemont,	1897	479,626	11	10/34	220 59	367 65	1,600 00	April 26,	Warren W. Smith, East Charlemont.	Frank B. Burrington, Heath.
	Florida,	1897	174,944	5	5/34	110 29	183 82				
	Hawley,	1897	156,586	7	7/34	154 41	257 35				
	Heath,[1]	1902	165,765	3	3/34	66 18	110 30				
	Monroe,	1897	157,478	4	4/34	88 24	147 06				
	Rowe,	1897	191,893	5	5/34	110 29	183 82				
37	Ashby,	1897	496,920	5	2/10	150 00	250 00	1,600 00	July 1,	J. W. Eastman, Townsend,	Rev. A. T. Kempton, Lunenburg.
	Lunenburg,[6]	1905	1,056,237	8	3/10	225 00	375 00				
	Townsend,	1897	1,152,294	9	5/10	375 00	625 00				
38	Dover,	1898	1,402,132	6	2/10	150 00	250 00	1,500 00	Sept. 1,	Harry E. Carson (Cochituate), Natick.	Dr. Philip S. Ide, Wayland.
	Sudbury,	1898	1,244,405	7	3/10	225 00	375 00				
	Wayland,	1898	2,212,099	11	5/10	375 00	625 00				

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[1] Added in 1902.
[2] A part of Wrentham; made a town in 1905.
[3] Added Oct. 17, 1903, by decree of State Board of Education.
[4] Added in 1901.
[5] Added in 1897.
[6] Added May 16, 1905, by decree of State Board of Education.

Union Superintendencies — Continued.

Number.	UNIONS.	When formed.	Valuation of assessed estate, May 1, 1908.	No. of schools, 1907–1908.	Each town's share of superintendent's — Service.	Each town's share of superintendent's — Salary.	State aid to each town.	Superintendent's salary.	When union superintendency year begins.	Joint committee. Chairman.	Joint committee. Secretary.
39	New Braintree, .	1898	$395,615	5	3/10	$225 00	$375 00	$1,500 00	May 20,	George K. Tufts, New Braintree.	Sumner H. Reed, West Brookfield.
	Sturbridge, . .	1898	1,053,403	12	4/10	300 00	500 00				
	West Brookfield, .	1898	996,223	7	3/10	225 00	375 00				
40	Acton, . . .	1898	1,807,480	11	3/10	225 00	375 00	1,600 00	Sept. 1,	Dr. Joseph W. Godfrey, Littleton.	Chas. J. Williams, Acton.
	Littleton, . .	1898	1,032,080	7	2/10	150 00	250 00				
	Westford, . .	1898	1,752,449	16	5/10	375 00	625 00				
41	Marion, . . .	1900	2,870,690	6	2/5	250 00	450 00	1,750 00	June 1,	John Huxtable, Wareham, .	A. C. Vose, Marion.
	Wareham, . .	1900	3,770,791	21	3/5	500 00	800 00				
42	Holden, . .	1900	1,501,940	16	10/20	375 00	625 00	1,500 00	Aug. 1,	Jesse Allen, Oakham, . .	Mrs. Addie M. Holden, Holden.
	Oakham, . .	1900	348,887	5	3/20	112 50	187 50				
	Paxton, . . .	1900	353,147	3	2/20	75 00	125 00				
	Rutland, . .	1900	743,797	6	5/20	187 50	312 50				
43	Ashfield, . .	1900	599,955	11	11/28	294 64	491 07	1,500 00	Sept. 1,	Mrs. May G. Boice, Ashfield,	George B. Church, Shelburne Falls.
	Cummington, .	1900	326,427	8	8/28	214 29	357 15				
	Goshen, . . .	1900	177,190	4	4/28	107 14	178 57				
	Plainfield, . .	1900	174,571	5	5/28	133 93	223 21				
44	Bedford, . . .	1900	1,288,168	4	7/20	262 50	437 50	1,800 00	June 1,	Robert H. Gowing, Wilmington.	Elihu G. Loomis, Bedford.
	Burlington, . .	1900	616,300	3	3/20	112 50	187 50				
	Wilmington, . .	1900	1,320,895	11	10/20	375 00	625 00				
45	Lynnfield, . .	1900	778,022	4	1/10	75 00	125 00	2,000 00	Aug. 1,	Chas. E. Montague, Wakefield,	Franklin W. Freeman, Lynnfield Centre.
	Wakefield, . .	1900	8,603,573	51	9/10	675 00	–				
46	Amherst, . .	1901	3,664,075	18	4/5	600 00	–	1,950 00	April 1,	John L. Brewer, Pelham, .	Albion B. Allen, Amherst.
	Pelham, . . .	1901	236,535	4	1/5	150 00	250 00				
47	Bernardston, . .	1901	422,463	5	6/28	160 72	267 87	1,500 00	April 15,	Dr. F. H. Smith, Hadley, .	Clifton Johnson, Hadley.
	Hadley, . . .	1901	1,318,489	12	12/28	321 42	535 70				
	Hatfield, . .	1901	1,340,420	10	10/28	267 86	446 43				

48	Blandford,	1901	470,131	8	7/30	175 00	291 67	1,500 00	July 1,	Edmund H. Cross, Huntington.	A. H. Nye, Russell.
	Huntington,	1901	616,485	10	10/30	250 00	416 67				
	Montgomery,	1901	168,209	4	4/30	100 00	166 66				
	Russell,	1901	710,487	9	9/30	225 00	375 00				
49	Avon,	1901	943,202	10	4/15	200 00	333 33	1,500 00	July 1,	Zenas A. French, Holbrook,	Patrick E. McGonnigle, Avon.
	Holbrook,	1901	1,419,573	13	5/15	250 00	416 67				
	Randolph,	1901	2,006,300	16	6/15	300 00	500 00				
50	Douglas,	1901	1,227,431	10	2/5	300 00	500 00	1,650 00	Sept. 1,	Leander S. Aldrich, Uxbridge,	Edward T. Buxton, Douglas.
	Uxbridge,	1901	2,824,358	26	3/5	450 00	750 00				
51	Erving,	1901	927,674	8	8/21	285 71	476 18	1,500 00	Aug. 1,	Nathan J. Hunting, Shutesbury.	Mrs. Jennie C. Richards, Erving.
	Leverett,	1901	303,753	5	5/21	178 57	297 62				
	Shutesbury,	1901	248,960	3	2/21	71 43	119 05				
	Wendell,	1901	249,466	6	6/21	214 29	357 15				
52	Lee,	1901	2,001,163	15	12/25	360 00	600 00	1,500 00	Sept. 1,	D. M. Wilcox, Lee,	J. J. Hassett, Lee.
	Monterey,	1901	304,851	4	5/25	150 00	250 00				
	Otis,	1901	244,081	5	5/25	150 00	250 00				
	Tyringham,	1901	258,507	4	3/25	90 00	150 00				
53	Hinsdale,	1901	579,303	9	3 5/8	258 62	431 04	1,550 00	May 7,	Dennis A. Cady, Windsor,	Thomas F. Barker, Hinsdale.
	Peru,	1901	133,835	5	1 7/8	129 31	215 51				
	Savoy,	1901	181,775	7	2 2/8	181 03	301 72				
	Windsor,	1901	275,197	7	2 2/8	181 04	301 73				
54	Halifax,	1901	513,481	3	2/15	100 00	166 67	1,650 00	July 1,	John M. Monroe (Bryantville), Pembroke.	John W. Cobb, Kingston.
	Kingston,	1901	1,557,900	11	6/15	300 00	500 00				
	Pembroke,	1901	971,185	7	5/15	250 00	416 66				
	Plympton,	1901	335,151	3	2/15	100 00	166 67				
55	Clarksburg,	1902	260,390	6	6/18	250 00	416 68	1,250 00	Sept. 1,	Chauncey H. Tracy, Cheshire,	F.C. Downing, Lanesborough.
	Hancock,	1902	297,145	6	6/18	250 00	416 68				
	Lanesborough,	1902	508,987	5	5/18	208 33	347 21				
	New Ashford,	1902	50,605	1	1/18	41 67	69 45				
56	Dana,	1902	383,595	5	5/18	208 33	347 22	1,500 00	July 1,	John H. Johnson, Dana,	Mrs. Nellie M. Brown, Dana.
	Greenwich,	1902	262,112	2	2/18	83 33	138 89				
	New Salem,	1902	363,650	7	7/18	291 67	486 11				
	Prescott,	1902	185,357	4	4/18	166 67	277 78				
57	Auburn,	1902	1,140,435	12	2/5	270 00	450 00	1,500 00	July 1,	W. T. Duvall, Auburn,	Tilden B. Stevenson (Manchaug), Sutton.
	Sutton,	1902	1,231,987	15	3/5	480 00	800 00				

Union Superintendencies — Continued.

Number.	UNIONS.	When formed.	Valuation of assessed estate, May 1, 1908.	No. of schools, 1907–1908.	EACH TOWN'S SHARE OF SUPERINTENDENT'S —		State aid to each town.	Superintendent's salary.	When union superintendency year begins.	JOINT COMMITTEE.	
					Service.	Salary.				Chairman.	Secretary.
58	Essex,	1902	$1,091,332	8	3/10	$225 00	$375 00	$1,600 00	July 1,	George K. Knowlton, Hamilton.	Joseph Simpson, Essex.
	Hamilton,	1902	3,603,170	10	3/10	225 00	375 00				
	Middleton,[1]	1905	769,168	4	2/10	150 00	250 00				
	Wenham,	1902	2,339,075	6	2/10	150 00	250 00				
59	Carver,	1902	1,395,855	10	4/10	300 00	500 00	1,500 00	May 1,	F. W. J. Gerrish, North Rochester, R. F. D.	Chester B. Morse, Rochester.
	Lakeville,	1902	675,405	6	3/10	225 00	375 00				
	Rochester,	1902	626,857	7	3/10	225 00	375 00				
60	Medfield,[2]	1908	1,542,939	7	1/4	187 50	312 50	1,600 00	Sept. 1,	George C. Lee, Jr., 44 State Street, Boston.	Edward W. Mann, Norfolk.
	Millis,	1902	800,810	7	1/4	187 50	312 50				
	Norfolk,	1902	806,831	6	1/4	187 50	312 50				
	Westwood,	1902	2,316,676	6	1/4	187 50	312 50				
61	Mt. Washington,	1902	83,734	2	6/50	75 00	125 00	1,500 00	April 25,	E. L. Boardman, Sheffield,	Z. H. Cande, Sheffield.
	New Marlborough,	1902	694,270	12	20/50	285 00	475 00				
	Sheffield,	1902	931,925	12	24/50	390 00	650 00				
62	Chesterfield,	1902	309,423	5	1/4	187 50	312 50	1,500 00	Sept. 1,	T. K. Utley, Chesterfield,	Mrs. Martha S. Bisbee, Williamsburg.
	Williamsburg,	1902	952,961	14	2/4	375 00	625 00				
	Worthington,	1902	322,499	6	1/4	187 50	312 50				
63	Alford,	1902	171,101	3	3/22	102 27	170 45	1,500 00	July 1,	George A. Germann, Alford,	Mrs. Susan W. Blake, West Stockbridge.
	Egremont,	1902	468,415	4	4/22	136 36	227 27				
	Richmond,	1902	354,403	6	7/22	238 64	397 73				
	West Stockbridge,	1902	401,062	8	8/22	272 73	454 55				
64	Berkley,	1902	419,786	7	4/20	150 00	250 00	1,500 00	July 1,	Edwin H. Allen, Berkley,	Ernest J. Bartlett, Dighton.
	Dighton,	1902	1,043,668	12	7/20	262 50	437 50				
	Rehoboth,	1902	789,056	15	9/20	337 50	562 50				
65	Charlton,	1902	1,306,860	15	1/2	375 00	625 00	1,500 00	Sept. 1,	Rev. Edgar W. Preble, Charlton.	Thomas A. Kane (Cherry Valley), Leicester.
	Leicester,	1902	2,362,382	20	1/2	375 00	625 00				

66	Boxborough,	1902	248,944	4	2/10	150 00	250 00	1,600 00	Sept. 1,	Henry P. Smith, Stow,	C. E. Bradford, Boxborough.
	Maynard,	1902	3,783,980	20	5/10	375 00	–				
	Stow,	1902	893,040	6	3/10	225 00	375 00				
67	Conway,	1903	702,574	11	31 per cent.	232 57	387 62	1,600 00	June 1,	C. G. Trow, Sunderland,	Edward A. Rice, South Deerfield.
	Deerfield,	1903	1,617,018	14	41 per cent.	306 00	510 00				
	Sunderland,	1903	491,429	4	18 per cent.	133 50	222 50				
	Whately,	1903	438,888	5	10 per cent.	77 93	129 88				
68	Agawam,	1903	1,771,125	14	15/38	296 05	493 42	1,600 00	July 1,	Edward E. Chapman, Ludlow,	Frederick A. Worthington, Agawam.
	Ludlow,	1903	3,717,446	26	23/38	453 95	756 58				
69	Granville,	1903	464,958	8	30 per cent.	225 00	375 00	1,500 00	July 1,	D. C. Barnes, Southwick,	Mrs. Emma L. Stow, Granville.
	Sandisfield,	1903	340,037	7	25 per cent.	187 50	312 50				
	Southwick,	1903	669,640	9	35 per cent.	262 50	437 50				
	Tolland,	1903	187,636	1	10 per cent.	75 00	125 00				
70	Dudley,	1903	1,577,554	15	1/3	250 00	416 67	2,100 00	Aug. 1,	Spaulding Bartlett, Webster,	R. A. Dunning, Webster.
	Webster,	1903	6,589,705	23	2/3	500 00	–				
71	Belchertown,	1904	915,955	19	18/25	540 00	900 00	1,500 00	Sept. 1,	P. R. Stratton, Enfield,	George H. B. Green, Belchertown.
	Enfield,	1904	676,170	7	7/25	210 00	350 00				
72	Boxford,	1905	1,199,921	6	1 day.	150 00	250 00	1,600 00	Aug. 1,	Franklin Balch, 35 Congress Street, Boston.	Alice P. Austin, Boxford.
	Newbury,	1905	1,248,835	7	1½ days.	225 00	375 00				
	Salisbury,	1905	898,465	8	1 day.	150 00	250 00				
	Topsfield,[2]	1908	1,254,962	5	½ day.	75 00	125 00				
	West Newbury,	1905	1,061,217	10	1 day.	150 00	250 00				
73[3]	Ashburnham,	1905	969,387	11	1/3	250 00	416 67	2,000 00	May 1,	Elisha M. Whitney, Winchendon.	Dr. Elmer G. Fosgate, Ashburnham.
	Winchendon,	1905	3,962,950	28	2/3	500 00	833 33				
74	Bolton,	1909	495,041	4	1/4	187 50	312 50	1,600 00	July 1,	Dr. H. B. Royal, Harvard,	J. E. Maynard, Harvard.
	Harvard,	1909	1,204,177	4	1/4	187 50	312 50				
	Pepperell,	1909	2,238,994	18	1/2	375 00	625 00				
75[4]	Ayer,	1909	2,038,818	10	4/10	300 00	500 00	2,000 00	Oct. 15,	Albert W. Hinds, West Boylston.	George H. Brown, Ayer.
	Boylston,	1909	481,060	4	1/10	75 00	125 00				
	Shirley,	1909	1,098,277	8	2/10	150 00	250 00				
	West Boylston,	1909	751,912	7	3/10	225 00	375 00				

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[1] Added May 16, 1905, by decree of State Board of Education.

[2] Added in 1908.

[3] Union No. 73 formed May 16, 1905, by decree of State Board of Education.

[4] Union No. 75 formed Sept. 20, 1909, by decree of State Board of Education.

Union Superintendencies — Concluded.

Number.	UNIONS.	When formed.	Valuation of assessed estate, May 1, 1908.	No. of schools, 1907–1908.	EACH TOWN'S SHARE OF SUPERINTENDENT'S —		State aid to each town.	Superintendent's salary.	When union superintendency year begins.	JOINT COMMITTEE.	
					Service.	Salary.				Chairman.	Secretary.
76	Seekonk, . . .	1909	$1,127,480	10	⅓	$250 00	$416 67	$1,700 00	July 1,	Hiram A. Thurber (Luther's Corners), Seekonk.	Fernald L. Hanson (Pottersville), Somerset.
	Somerset, . . .	1909	1,245,111	13	⅓	250 00	416 67				
	Swansea, . . .	1909	1,279,737	12	⅓	250 00	416 66				
77	Freetown, . . .	1909	858,825	8	⅖	300 00	500 00	1,600 00	July 1,	Dr. W. C. Crocker, Foxborough.	Mrs. Viola M. Burns (Assonet), Freetown.
	Foxborough, . .	1909	2,209,320	16	⅗	450 00	750 00				
78	Billerica, . . .	1909	2,274,444	16	⅖	300 00	500 00	2,200 00	Sept. 1,	Fred A. Casey, Billerica, .	W. A. Smith, Stoneham.
	Stoneham, . . .	1909	5,027,334	27	⅗	450 00	–				
79	Amesbury, . . .	1909	5,872,030	24	3 days.	450 00	–	1,800 00	Aug. 1,	George W. Cate, Amesbury,	Dr. F. E. Sweetser, Merrimac.
	Merrimac, . . .	1909	1,224,701	9	2 days.	200 00	500 00				

NOTE. — Of the foregoing unions, those numbered 27, 31, 46 and 59 were authorized by special acts of the Legislature.

FINANCIAL STATEMENTS.

THE MASSACHUSETTS SCHOOL FUND.

The following statement shows the condition of the Massachusetts school fund: —

Amount of the fund Jan. 1, 1909,	$5,000,000 00
Amount of fund Dec. 31, 1909,	5,000,000 00
Gross income for 1909,	$233,568 48
Paid for accrued interest on securities purchased,	2,394 61
Net income,	$231,173 87
Paid to towns in the distribution of Jan. 25, 1910,	$231,173 87

The following table shows the amount of the principal of the Massachusetts school fund and the annual income from 1896 to 1909: —

Year.	Principal.	Income.
1896,	$3,970,548 14	$175,165 64
1897,	4,070,548 14	189,808 71
1898,	4,170,548 14	204,612 61
1899,	4,270,548 14	208,462 61
1900,	4,370,548 14	213,066 18
1901,	4,470,548 14	366,656 51
1902,	4,570,548 14	220,731 77
1903,	4,670,548 14	197,379 93
1904,	4,780,110 66	214,224 13
1905,	4,880,110 66	219,379 32
1906,	4,980,110 66	224,468 31
1907,	5,000,000 00	228,621 22
1908,	5,000,000 00	229,439 73
1909,	5,000,000 00	231,173 87

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION.

Dr. Appropriations and Expenditures for Support of State Normal Schools. Cr.

1909.	Expended for Bridgewater Normal School,	$52,991 00		1909.	Appropriation (chapter 57, Acts of 1909),	$352,719 00
	Expended for Fitchburg Normal School,	47,110 04			Received from the city of Fitchburg,	12,440 44
	Expended for Framingham Normal School,	39,821 25				
	Expended for Hyannis Normal School,	23,999 92				
	Expended for Lowell Normal School,	33,036 80				
	Expended for North Adams Normal School,	32,706 85				
	Expended for Salem Normal School,	41,149 58				
	Expended for Westfield Normal School,	32,410 00				
	Expended for Worcester Normal School,	27,054 89				
	Expended for Normal Art School,	34,390 78				
		$364,671 11				
	Balance unexpended,	488 33				
			$365,159 44			$365,159 44
	Bridgewater Normal School: —					
	Salaries,	$28,031 90			Appropriation (chapter 57, Acts of 1909),	$52,991 00
	Model school,	7,367 19				

Wages and labor,	6,760 04			
Buildings and grounds,	8,375 48			
School supplies,	2,196 40			
Miscellaneous,	259 99			
		$52,991 00		$52,991 00
Fitchburg Normal School : —				
Salaries,	$16,766 60		Appropriation (chapter 57, Acts of 1909),	$34,680 00
Model school,	16,666 66		Received from city of Fitchburg,	12,440 44
Wages and labor,	5,192 93		Received from printing,	11 40
Buildings and grounds,	5,164 23			
School supplies,	2,753 63			
Lectures, etc.,	147 50			
Miscellaneous,	429 89			
Balance unexpended,	10 40			
		$47,131 84		$47,131 84
Framingham Normal School : —				
Salaries,	$18,550 97		Appropriation (chapter 57, Acts of 1909),	$39,843 00
Model school,	6,434 45			
Wages and labor,	5,236 52			
Buildings and grounds,	7,908 85			
School supplies,	1,215 67			
Lectures, etc.,	39 00			
Miscellaneous,	435 79			
Balance unexpended,	21 75			
		$39,843 00		$39,843 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

DR. APPROPRIATIONS AND EXPENDITURES FOR SUPPORT OF STATE NORMAL SCHOOLS — *Continued.* CR.

1909.	Hyannis Normal School : —			**1909.**	Appropriation (chapter 57, Acts of 1909),	$24,000 00
	Salaries,	$9,974 82				
	Model school,	2,611 41				
	Wages and labor,	2,264 28				
	Buildings and grounds,	4,981 86				
	School supplies,	1,074 37				
	Lectures, etc.,	103 00				
	Summer school and miscellaneous,	2,990 18				
	Balance unexpended,	08				
			$24,000 00			$24,000 00
	Lowell Normal School : —				Appropriation (chapter 57, Acts of 1909),	$33,365 00
	Salaries,	$15,816 26				
	Model school,	6,557 97				
	Wages and labor,	2,357 35				
	Buildings and grounds,	3,712 83				
	School supplies,	3,939 24				
	Lectures, etc.,	147 00				
	Miscellaneous,	506 15				
	Balance unexpended,	328 20				
			$33,365 00			$33,365 00
	North Adams Normal School : —				Appropriation (chapter 57, Acts of 1909),	$32,708 00
	Salaries,	$15,409 93				
	Model school,	3,739 06				

Wages and labor,	5,322 88			
Buildings and grounds,	5,678 23			
School supplies,	2,115 80			
Lectures, etc.,	148 90			
Miscellaneous,	292 05			
Balance unexpended,	1 15			
		$32,708 00		$32,708 00
Salem Normal School: —				
Salaries,	$19,716 78		Appropriation (chapter 57, Acts of 1909),	$41,150 00
Model school,	4,459 43			
Wages and labor,	3,050 04			
Buildings and grounds,	5,866 43			
School supplies,	2,792 08			
Lectures, etc.,	150 00			
Commercial department and miscellaneous,	5,114 82			
Balance unexpended,	42			
		$41,150 00		$41,150 00
Westfield Normal School: —				
Salaries,	$12,833 32		Appropriation (chapter 57, Acts of 1909),	$32,410 00
Model school,	6,740 11			
Wages and labor,	3,812 52			
Buildings and grounds,	5,611 22			
School supplies,	2,970 67			
Lectures, etc.,	176 93			
Miscellaneous,	265 23			
		$32,410 00		$32,410 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

APPROPRIATIONS AND EXPENDITURES FOR SUPPORT OF STATE NORMAL SCHOOLS — *Concluded.*

DR.				CR.		
1909.	Worcester Normal School : —			**1909.**	Appropriation (chapter 57, Acts of 1909),	$27,055 00
	Salaries,	$16,632 91				
	Model school,	1,799 88				
	Wages and labor,	1,522 69				
	Buildings and grounds,	4,932 27				
	School supplies,	1,863 29				
	Lectures, etc.,	69 25				
	Miscellaneous,	234 60				
	Balance unexpended,	11				
			$27,055 00			$27,055 00
	Normal Art School : —				Appropriation (chapter 57, Acts of 1909),	$34,517 00
	Salaries,	$24,802 55				
	Wages and labor,	3,300 24				
	Buildings and grounds,	3,302 21				
	School supplies,	171 46				
	Lectures, etc.,	935 00				
	Miscellaneous,	166 05				
	Evening school,	1,713 27				
	Balance unexpended,	126 22				
			$34,517 00			$34,517 00

Expenditures for Aid to Normal School Pupils.

1909.				1909.		
Feb.	Amount distributed to normal schools,	$2,000 00			Appropriation (chapter 57, Acts of 1909),	$4,000 00
June	Amounts paid :—					
	Bridgewater Normal School,	568 95				
	Fitchburg Normal School,	137 93				
	Framingham Normal School,	258 62				
	Hyannis Normal School,	137 93				
	Lowell Normal School,	34 49				
	North Adams Normal School,	155 17				
	Salem Normal School,	172 42				
	Westfield Normal School,	517 24				
	Worcester Normal School,	17 25				
			$4,000 00			$4,000 00

Expenditures for Salaries.

1909.	George H. Martin, Secretary,	$2,625 00		1909.	Appropriation for salaries of the secretary and agents of and for clerical assistance to the Board (chapter 57, Acts of 1909),	$17,420 00
	John T. Prince, agent,	1,458 33				
	James W. MacDonald, agent,	1,458 33				
	Julius E. Warren, agent,	1,458 33				
	Frederic L. Burnham, agent,	1,458 33				
	A. C. Blake, clerk,	700 00				
	E. E. Elwell, clerk,	583 33				
	George H. Varney, clerk,	420 00				
	Balance unexpended, July 1, 1909,	7,258 35				
			$17,420 00			$17,420 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

DR. EXPENDITURES FOR SALARIES — *Concluded.* CR.

1909.	David Snedden,	$288 90		1909.	Appropriation for commissioner of education, deputy commissioners, agents, and for clerical and messenger service (chapter 543, Acts of 1909),	$17,000 00
	George H. Martin,	1,875 00				
	John T. Prince,	1,041 65				
	James W. MacDonald,	1,041 65				
	Julius E. Warren,	1,041 65				
	Frederic L. Burnham,	1,041 65				
	Frank Waldo,	1,000 00				
	Florence M. Marshall,	1,041 65				
	A. C. Blake,	500 00				
	E. E. Elwell,	416 65				
	George H. Varney,	300 00				
	R. W. Stimson,	87 83				
	Extra clerical service,	397 10				
	New Bedford canvass,	393 10				
	Balance unexpended,	6,533 17				
			$17,000 00			$17,000 00

EXPENDITURES FOR TRAVELLING EXPENSES OF EMPLOYEES OF THE BOARD.

1909.	Paid John T. Prince,	$196 87		**1909.**	Appropriation (chapter 57, Acts of 1909),	$1,700 00
	James W. MacDonald,	344 22				
	Julius E. Warren,	354 54				
	Frederic L. Burnham,	283 40				
		$1,179 03				
	Balance unexpended July 1, 1909,	520 97				
			$1,700 00			$1,700 00
	Paid John T. Prince,	$105 92			Appropriation (chapter 543, Acts of 1909),	$2,100 00
	James W. MacDonald,	189 13				
	Julius E. Warren,	156 26				
	Frederic L. Burnham,	124 68				
	Frank Waldo,	94 73				
	Florence M. Marshall,	21 00				
		$691 72				
	Balance unexpended,	1,408 28				
			$2,100 00			$2,100 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

EXPENDITURES FOR INCIDENTAL EXPENSES AND TRAVELLING EXPENSES OF MEMBERS.

DR.				CR.		
1909.	Amounts paid for :—			1909.	Appropriation (chapter 57, Acts of 1909),	$2,600 00
	Printing,	$597 74			Deficiency,	242 55
	Stationery,	214 42				
	Expressage,	448 22				
	Postage,	308 55				
	Copying,	72 95				
	Books and periodicals,	75 65				
	Telephone,	137 14				
	Newspaper clippings,	45 60				
	Advertising,	30 45				
	Binding,	38 50				
	Adding machine,	175 00				
	Lantern slides,	51 75				
	Miscellaneous,	19 19				
	Amounts paid to :—					
	Henry Whittemore (visits to normal schools),	165 56				
	Kate G. Wells,	38 92				
	A. E. Winship,	15 62				
	J. D. Miller,	18 60				
	George I. Aldrich,	81 00				
	C. Q. Richmond,	194 77				
	Ella L. Cabot,	43 22				
	Paul H. Hanus,	27 00				
	F. W. Hamilton,	16 70				
	Levi L. Conant,	26 00				
			$2,842 55			$2,842 55

EXPENDITURES FOR TEACHERS' INSTITUTES.

1909.	Paid for expenses and instructors at institutes held at Holden, Worcester, Boston, Ludlow, Attleborough, Amherst, South Framingham, Dedham, Dartmouth, North Dana, Cummington, Chester, Oak Bluffs, Plymouth, Georgetown, Hyannis and Ayer,	$1,658 14		**1909.**	Appropriation (chapter 57, Acts of 1909),	$2,000 00
	Balance unexpended,	341 86				
			$2,000 00			$2,000 00

EXPENDITURES FOR EDUCATION OF ADULT BLIND.

1909.	Paid for teachers and their expenses,	$4,904 34		**1909.**	Appropriation (chapter 57, Acts of 1909),	$5,000 00
	Balance unexpended,	95 66				
			$5,000 00			$5,000 00

EXPENDITURES FOR REGISTERS AND CENSUS BLANKS.

1909.	Expended for printing, expressage and postage,	$1,166 81		**1909.**	Appropriation (chapter 57, Acts of 1909),	$1,200 00
	Balance unexpended,	33 19				
			$1,200 00			$1,200 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

EXPENDITURES FOR MEDICAL INSPECTION.

Dr.					Cr.	
1909.	Expended for printing, expressage and postage,	$601 06		1909.	Appropriation (chapter 57, Acts of 1909),	$800 00
	Balance unexpended,	198 94				
			$800 00			$800 00

EXPENDITURES FOR EDUCATION OF DEAF CHILDREN.

1909.	Amounts paid as follows: —			1909.	Appropriation (chapter 57, Acts of 1909),	$98,000 00
Jan. 5,	Horace Mann School: —				Deficiency,	5,666 65
	Transportation, Oct. 15 to Dec. 15, 1908,	$705 33				
20,	Clarke School: —					
	107 pupils, quarter beginning Jan. 1, 1909,	7,892 25				
26,	Sarah Fuller Home: —					
	10 pupils, quarter ending Jan. 1, 1909,	612 50				
29,	American School: —					
	46 pupils, quarter beginning Dec. 1, 1908,	2,937 50				
29,	Boston School: —					
	120 pupils, half year ending Jan. 31, 1909,	14,500 10				
Mar. 25,	American School: —					
	46 pupils, quarter beginning March 1, 1909,	3,225 00				

Mar. 30,	Sarah Fuller :— 53 pupils with defective speech, Oct. 16, 1908, to March 27, 1909, . .	270 00				
Apr. 20,	Clarke School :— 106 pupils, quarter beginning April 1, 1909, . . .	7,779 64				
21,	Sarah Fuller Home :— 11 pupils, quarter ending April 1, 1909, ...	672 94				
May 5,	Horace Mann School :— 167 pupils, Feb. 1, 1909, to July 1, 1909, . . .	12,104 00				
24,	Horace Mann School :— Transportation, Dec. 15, 1908, to April 15, 1909, . .	1,386 00				
June 12,	Boston School :— 120 pupils, half year ending June 16, 1909, . . .	16,133 38				
24,	American School :— 45 pupils, quarter beginning June 1, 1909, . . .	3,093 75				
July 8,	Sarah Fuller Home :— 11 pupils, quarter ending July 1, 1909, ...	625 00				
8,	American School :— Bill for clothing to July 1, 1909, ...	298 80				
	Amount carried forward, . .	$72,236 19			*Amount carried forward,* .	$103,666 65

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONCLUDED.

EXPENDITURES FOR EDUCATION OF DEAF CHILDREN — *Concluded.*

DR.						CR.
1909.	*Amount brought forward,* .	$72,236 19		**1909.**	*Amount brought forward,* .	$103,666 65
	Amounts paid as follows: —					
July 24,	Horace Mann School: — Transportation, April 15 to June 24, 1909, . . .	682 11				
26,	Clarke School: — 105 pupils, quarter beginning July 1, 1909, . . .	7,725 00				
Oct. 8,	Horace Mann School: — 150 pupils, Sept. 1, 1909, to Feb. 1, 1910, . . .	11,165 50				
15,	Sarah Fuller Home: — 13 pupils, quarter ending Oct. 1, 1909, ...	328 15				
Nov. 13,	Clarke School: — 106 pupils, Oct. 1, 1909, to Jan. 1, 1910, . . .	7,735 49				
29,	Horace Mann School: — Transportation, June 24 to Nov. 10, 1909, . . .	975 46				
Dec. 6,	American School: — 41 pupils, quarter beginning Oct. 1, 1909, . . .	2,818 75				
			$103,666 65			$103,666 65

INDEPENDENT INDUSTRIAL SCHOOLS.

INDEPENDENT INDUSTRIAL SCHOOLS.

The Board of Education respectfully submits the following report as to the independent industrial schools thus far established under chapter 505 of the Acts of 1906 and acts amendatory thereof and supplementary thereto.

As stated in its general report, it has been impossible for the Board to develop an adequate organization since July 1, 1909, when it succeeded to the duties and powers of the Commission on Industrial Education. While it has inspected the existing schools to the extent of its ability, it is its intention during the coming year to complete an effective organization and to define more clearly its policy, with which the industrial schools will be expected to comply.

It is the opinion of the Board that the independent industrial schools heretofore established have accomplished good work in the respective communities in which they are located. Many of them are admirable schools.

All the schools established by the Commission on Industrial Education having been approved by it up to June 1, 1909, the Board of Education, accepting that approval as final, approves those schools to Jan. 1, 1910, inasmuch as they have in every case continued on exactly the lines which met with the approbation of the Commission on Industrial Education. If, as may be necessary, the Board of Education adopts in some particulars a new standard, the schools will be obliged to conform to that standard in order to secure the approval of the Board.

The only new independent industrial school that has been established since July 1, 1909, is the Boston Trade School for Girls. This school, which was established Sept. 10, 1909, was transferred to the city as a going school by its private founders and supporters, having a large equipment and many pupils. It has been installed in a new building, furnished by the city at an expense of over $40,000. It has courses in dressmaking, millinery, factory-made clothing, straw hat making, and in hygiene and academic branches having due relation to the practical work. A moderate amount of domestic science is also taught each girl. All of the teachers are practical trade workers. The school has approximately 250 students.

It is approved as to location, courses and methods of instruction by the Board of Education.

There are at the present time independent industrial schools in operation in 16 cities and towns in the Commonwealth. All of these except the Boston Trade School for Girls were initiated and approved up to June, 1909, by the Commission on Industrial Education. Those schools are as follows: —

1. The Boston Trade School for Girls, above referred to.

2. The Lawrence Industrial School (day and evening), the evening department of which was established Jan. 20, 1908, and the day department Feb. 23, 1909. The plan from the beginning was to establish both day and evening classes. This school has courses in textile arts, mechanical arts and in trades for girls. During 1909–10, 23 specific courses were offered, and 143 pupils enrolled, in the day classes; and during 1908–09, 15 specific courses, with 1,367 pupils in the evening classes. In 1908 and 1909 new equipment worth about $40,000 was secured for the school. The teachers are men and women from the trades.

3. The New Bedford Industrial School (day and evening), the evening department having been established Nov. 4, 1907, and the day department Nov. 23, 1908. It was the plan from the beginning to establish both day and evening courses. This school has courses in metal working, wood working, industrial drawing and applied science, and in academic work related to the practical work. It has a well-equipped machine shop, carpentry shop and drawing room and science laboratories, besides facilities for a variety of practical courses for evening students. In 1909–10, 65 pupils are in attendance in day classes; and the enrollment in evening classes in 1908–09 was 256.

4. The Beverly Industrial School (day and evening), the evening department having been established Oct. 21, 1907, and the day department June 26, 1909. The plan from the beginning was to offer both day and evening courses. Courses are given in machine shop work, gas engines, shop mathematics, industrial drawing, architectural drawing, engineering mathematics and academic work related to the practical work. In 1908–09, 275 pupils were registered in the evening courses; and in 1909–10, 50 pupils in the day courses. The equipment is adequate. The evening department has now been discontinued.

5. Smith's Agricultural School and Northampton School of Technology, Northampton, was established March 15, 1907. Courses are maintained in mechanic arts, agriculture and household arts. In 1908–09 the number of students was 114. The school has buildings worth upwards of $50,000, and the equipment is adequate. The school was based upon a fund which has been accumulating for many years, but has received substantial support from the tax payers of Northampton.

6. The Worcester School of Trades, to be opened January, 1910, in buildings and with equipment which had been provided through an appropriation of $125,000 from the city of Worcester. Inasmuch as the school was only projected prior to June 1, 1909, the approval of the Commission on Industrial Education was as to its location and the proposed general plan of its work. There is no reasonable doubt that its courses and methods of instruction will be entirely satisfactory and will meet with the approval of the Board of Education.

7. The Natick Industrial School (evening) was established Sept. 28, 1908. Courses in sewing, dressmaking, cooking and advanced cooking are offered. In 1908–09, 85 pupils were registered. Cooking and sewing equipments already installed for day school pupils were employed, and additional equipment supplied. Most of the pupils are employed during the day.

8. The Waltham Industrial School (evening) first received appropriations Nov. 18, 1907. The work in this school was entirely new, consisting of shop mathematics, machine shop practice and industrial drawing. Equipment to the value of $2,360 was available. This school has now been discontinued.

9. The Taunton Industrial School (evening) was established Dec. 23, 1907. Courses have been given in modelling, sewing and dressmaking. In 1908–09, 77 pupils were enrolled.

10. The Boston Industrial School (evening) was established Sept. 29, 1908. Courses have been given in interior decoration, building and estimating, machine shop practice, industrial mathematics, boiler engineering, tool and jig making, ship draughting, architectural drawing, machine drawing and applied freehand drawing. In 1908–09, 1,102 students were enrolled. The equipment is adequate. The workers average twenty-three years of age. Nearly all of the teachers are practical trade workers. The city of Boston designed the school as a first step in an extended system of industrial schools.

11. The Brockton Industrial School (evening) was established Oct. 6, 1908. The school has courses in plain sewing, dressmaking, millinery, mechanical drawing and engineering. In 1908–09 there were enrolled 569 students. This school is regarded by the city as the beginning of a system of local Independent Industrial Schools.

12. The Chicopee Industrial School (evening) was established Sept. 8, 1908. Courses are given in machine shop work, pattern making,

wood working, cabinet work, wood turning and industrial drawing. About $13,000 was spent on equipment, most of which is also used in a day industrial school conducted under local auspices, though some of the most important pieces (a grinder, a milling machine, a planer and eight lathes) were put in specifically for evening schools. In 1907–08, 114 students registered.

13. The Pittsfield Industrial School (evening) was established in November, 1908. Courses in mechanical drawing, shop mathematics and carpentry are given. An old equipment was available, and new was added. It is hoped that this school will serve as a basis for the development of further industrial work, especially in connection with mechanical, electrical and textile industries. In 1909–10, 75 pupils were enrolled.

14. The Walpole Industrial School (evening) was established Dec. 11, 1908. The school offers courses in mechanical drawing, architectural drawing and cooking, and had an attendance of 23 during 1908–09. An old equipment was available, and about $200 expended on special equipment. It is hoped that the school will lead to an enlarged vocational school.

15. The Cambridge Industrial School (evening) was established Oct. 14, 1907, and in it have been organized two distinct types of work. For men, courses were established in machine shop work, wood turning, pattern making, forge practice, freehand drawing, architectural drawing, machine drawing and shop mathematics; for girls, courses in sewing, dressmaking and millinery, with an additional class in shirt waist making and design. In 1907–08 a total of 632 pupils registered. In the men's classes the extensive equipment of an existing manual training high school was employed; while in the girls' classes new equipment was provided to the value of $150, consisting of tables, forms, chairs and two new sewing machines.

16. The Montague Industrial School (day) was established June 30, 1908. Courses in agriculture, carpentry and mechanical work for boys, and domestic science and domestic arts for girls, were introduced. In 1908–09, 48 pupils were registered.

17. The Newton Industrial School (day) was established Dec. 28, 1908, by the city of Newton. The school opened Feb. 1, 1909, with courses in shop work (wood work) and the associated drawing, arithmetic and English, together with industrial geography and elementary science. There was an enrollment of 18 boys, fourteen years of age and upwards. In December, 1909, machine work and advanced wood work were added, with an increased enrollment. The school was approved by the Commission on Industrial Education as to location, courses and methods of instruction. The school is maintained under city auspices, but the expense of maintenance is met by private donations.

The interest in industrial education in the Commonwealth has not diminished. The citizens of the State and school officials recognize the necessity of the establishment of industrial schools. The Board of Education has no doubt that when its organization is completed, so that the matter can be dealt with definitely, there will be as rapid a development in such schools as can wisely be undertaken. In many cities and towns there are at the present time definite movements toward the establishment of such schools in co-operation with the Board.

By the terms of section 5 of chapter 505 of the Acts of 1906, cities and towns establishing independent industrial schools for industrial training, as provided in the act, were entitled to reimbursement from the Commonwealth of a portion of the cost of maintenance of such schools on the basis set out in said section. This section of the act was amended by chapter 540 of the Acts of 1909, which changed the basis of reimbursement.

None of the independent industrial schools above named, except the Lawrence school and the Northampton school, have as yet received any appropriation from the State. The Commission on Industrial Education, on June 2, 1908, submitted to the Legislature a statement as to the cost of maintenance of the schools then established (Beverly, Cambridge, Lawrence, New Bedford, Taunton, Waltham), with a further statement of the State's proportionate share of the expense of maintaining those schools. The Legislature, in conformity with this statement, by chapter 619 of the Acts of 1908, appropriated the sum of $6,000 for the State's portion of the cost of maintenance of these schools. Out of the amount so appropriated, Lawrence alone received its reimbursement. The State officials whose duty it was to pass upon the matter adopted the view that the other schools above named were not independent industrial schools within the meaning of the statute, and therefore not entitled to reimbursement.

In June, 1909, the Commission on Industrial Education submitted to the Legislature a like statement of the cost of maintenance of the schools then established (namely, those at Beverly, Boston, Brockton, Cambridge, Chicopee, Natick, New Bedford, Pittsfield, Taunton, Walpole, Waltham, Lawrence, Montague, Northampton), and of the amount that should be appropriated by the State for reimbursement to those cities and towns; also, a statement of the amounts to be paid by the State as partial reimbursement to cities and towns, residents of which had attended independent industrial schools in other cities and towns, for tuition fees paid for such residents, as provided in section 4, chapter 572 of the Acts of 1908. But the Legislature made no appropriation. The fact that question had been raised by the State officials as to whether or not certain of the schools were lawfully established under the statute may have had weight with the Legislature in the matter.

The Legislature did, however, by special act, chapter 135 of the Resolves of 1909, appropriate the sum of $7,000 toward the maintenance of the Northampton school.

As the question is likely to come up at this session of the Legislature, a brief statement of the point at issue is proper.

Certain of the cities and towns which had established industrial evening schools in conjunction with the Commission on Industrial Education had, prior to the establishment of such schools, evening schools in which were given courses of an industrial character which were for the most part incomplete and inadequate for sound industrial work. These old evening schools were part of the public school system. In few cases did the practical or vocational work done in them approach the standard established by the Commission on Industrial Education. The respective cities and towns referred to desired to make beginnings of sound industrial education. They therefore negotiated with the Commission on Industrial Education for the establishment of evening industrial schools which would meet with the approval of the commission, with the result that such schools were established and approved by the commission. When these schools were established, some of the cities and towns ceased to give industrial courses in their other evening schools.

The State officials above referred to felt obliged to take the position that a school to be established as an independent industrial school under the statute must be a new school which did not succeed to any part of the public school system. The Attorney-General is of the same opinion.

The Commission on Industrial Education and the respective cities and towns acted in the utmost good faith in the matter, believing that the new evening schools were authorized by the statute, and that under it the Commonwealth would reimburse the cities and towns for a portion of the cost of maintenance. There could be no question, under the act, of the power of the Commission on Industrial Education to establish evening as well as day schools. In every case the work in the new school differed substantially from that which had been given before. The new schools met with the approval of the commission, as conforming to its standards. The courses and methods of instruction in the old schools were not such as to conform to the commission's standards.

The Board of Education is of the opinion that the establishment of these evening schools, as to which question has been raised, distinctly promoted the development of industrial education in the Commonwealth. The establishment of such a school in any city or town was the first and an easy step toward securing in that city or town the organization of a definite system of day and evening industrial schools, such as the policy of the State required. The new evening schools offered an opportunity to test local needs. They were sure to stimulate interest in industrial education in the cities and towns in which they were located.

While the Board of Education has no authority in the matter, it respectfully suggests that the Legislature might well conclude that it is expedient to take into account the intent and purposes of the local authorities and of the Commission on Industrial Education, and to allow the statutory reimbursement for a portion of the cost of maintenance of the schools in question, to the extent to which they are approved by the Board as to courses and methods of instruction, even if they were not established in technical compliance with the statute.

As to certain of the independent industrial schools above named, no such question arises. The Boston Trade School for Girls, the Lawrence Industrial School (which the State officials recognized as established in accordance with the statutes, and as to which reimbursement has been received up to Dec. 23, 1908), the Northampton school and the Worcester school were all new schools, established in towns in which industrial courses had not even been foreshadowed.

These schools, which received the approval of the Commission on Industrial Education up to the time of its discontinuance, are now approved by the Board, and reimbursement is recommended without hesitation.

Prior to the establishment of the New Bedford school and the Beverly school there had been certain meager evening courses of an industrial character in the public school system of those cities respectively.

The courses given in the old schools were relatively unimportant. They did not in any sense approach the standard required for an independent industrial school. The evening schools established by the Commission on Industrial Education were started as preliminary to the establishment of complete day and evening schools. The day schools soon followed, and are now in successful operation. It would seem that, even if the State officials were right in their construction of the statute, no question should be raised as to the Beverly and New Bedford schools.

The Board of Education approves the New Bedford and Beverly schools, and recommends reimbursement.

No question whatever can be raised as to the day schools in those cities. The statement which follows discriminates between the day and evening schools as to cost of maintenance to June, 1909.

The Natick school, the Waltham school and the Taunton school were, in substance, new schools. Any evening courses of an industrial character that had preceded them were negligible.

These schools are approved by the Board of Education, and reimbursement recommended.

The relation of the remaining schools, when first established, to the prior schools which they succeeded, was as follows: —

As already stated, the courses given in the older schools were for the most part partial, inadequate and incomplete. The older schools were in no sense industrial schools. In so far as industrial courses were given, they were tentative and experimental. This statement applies to all the schools.

Prior to the establishment of the Boston Industrial School, certain courses had been given in the Boston evening schools that were industrial in character. They were an incident in evening school work, while the new school was definitely an industrial school, to a marked degree conforming to the requirements of the commission. The old evening courses were discontinued March, 1908.

Prior to the establishment of the Brockton Industrial School, there had been in Brockton certain evening courses of an adequate character that were of the industrial type. The new school was, however, so essentially different from the old school as to be an industrial school conforming to the standards of the commission.

Prior to the establishment of the Chicopee Industrial School, there had been in Chicopee evening courses devoted mostly to draughting, which were discontinued shortly after the establishment of the school.

Prior to the establishment of the Pittsfield Industrial School, there was an evening class in Pittsfield in which was given a course in mechanical drawing, which was discontinued when the new school was established. The new school was of an essentially different type from the old, and conformed to the requirements of the commission.

Prior to the establishment of the Walpole Industrial School, there were in Walpole certain evening courses of an incomplete and inadequate character.

Prior to the establishment of the Cambridge Industrial School, there were extensive evening courses. The courses of the new school were made distinctly more industrial and practical in character.

As to all these last-named schools, it is the opinion of the Board that the Legislature may well conclude to carry out the expectations of the commission and of the cities and towns that there would be statutory reimbursement from the Commonwealth.

The Montague day school was initiated by the co-operation of the Commission on Industrial Education and the town of Montague, under the following conditions: —

The town desired to establish an independent school for agriculture and domestic science, under the statute. It gave up one of the two high schools in town for this purpose. Land was purchased and an adequate expenditure was made for the household arts equipment. A considerable carpentry equipment already on hand was turned over to the school. A male teacher specially qualified for the agricultural and manual work was employed, and a woman teacher specially trained in household arts. A part of the work is academic, but the agricultural, manual and household arts work are distinctly industrial from the standpoint of the demands of the locality. Many authorities emphatically believe that such a school, one devoted to agriculture and domestic science, should combine a programme of liberal and vocational studies, partly owing to the fact that almost all of the students have in connection with their farm homes a considerable amount of practical work in the tillage of the soil, repairing, and management of the stock. From this, which is a reasonable point of view, the Montague school is distinctly an industrial school, although it reserves a portion of the time of its students for liberal studies. Any school of this character must necessarily be in the nature of an experiment, in view of the limited experience in such work. The school authorities at Montague are earnestly trying to solve the troublesome problems that arise in connection with such a school under rural conditions. The school was established in good faith, and has met every suggestion of the Commission on Industrial Education, the State Board of Education or its agents. It conforms largely to the requirements in Bulletin No. 7, "The Agricultural School," which was prepared after an extended study of the problem by the Commission on Industrial Education.

The Commission on Industrial Education approved the school up to June, 1909, and the Board of Education now approves it, subject to the legal question that has been raised in connection with certain of the evening schools.

The Board of Education recommends reimbursement for this school, even if it does not appear that it was technically established in precise accordance with the requirements of the statute.

The question as to the recognition of this school is of larger importance because residents of many of the towns in the neighborhood have attended this school.

In presenting the figures as to reimbursement to which the cities and towns are entitled, there is shown, first the amounts that should be appropriated in each case under section 5 of chapter 505 of the Acts of 1906, to meet expenditures up to June 30, 1909. There are also presented estimates of the amounts which should be appropriated for reimbursements from July 1, 1909, to Dec. 31, 1909, and further estimates as to the amounts that should be appropriated for reimbursements from Jan. 1, 1910, to Dec. 31, 1910.

The Board of Education submits the matter in this way for the convenience of the Legislature, and that appropriations for the current year may be made, if the Legislature regard this as the proper course.

In so far as the estimates are concerned, the exact expenditure for the periods covered by the estimates should be verified by the Board, and approval ultimately given only for the amounts actually expended to Dec. 31, 1909, and again for the amounts actually expended to Dec. 31, 1910.

The Board at the present time accepts the standard of the Commission on Industrial Education, and approves the courses and methods of instruction which were approved by the commission in June, 1909, to the extent that it is satisfied that the same have been continued without deterioration since that date. During the current year it will complete its organization and establish its own standards, to which standards all the schools will be expected to conform.

The figures are as follows: —

FINANCIAL STATEMENT OF THE INDEPENDENT INDUSTRIAL SCHOOLS.
(AMOUNTS EXPENDED, AND ESTIMATES.)

[A, — reimbursements in accordance with the provisions of section 5, chapter 505, Acts of 1906; B, — reimbursements of one-half in accordance with the provisions of chapter 540, Acts of 1909.]

SCHOOL.	Period of instruction.	Cost of maintenance.	Amount of reimbursement.	Total of reimbursements.	Total appropriation required: expended, and estimates.
Beverly, . .	Evening school: —	Expended	Expended		
	Sept., 1907–June, 1908, .	$857 29	$171 46A		
	Sept., 1908–June, 1909, .	1,608 48	321 70A	$493 16	
	Day school: —	Estimates	Estimates		
	Sept., 1909–Dec. 31, 1909, .	$1,800 00	$900 00B		
	Jan. 1, 1910–Dec. 31, 1910, .	6,000 00	3,000 00B	3,900 00	$4,393 16
Boston, . .	Day school: —	Estimates	Estimates		
	Sept., 1909–Dec. 31, 1909, .	$7,200 00	$3,600 00B		
	Jan. 1, 1910–Dec. 31, 1910, .	27,000 00	13,500 00B	$17,100 00	17,100 00
Lawrence,. .	Evening school: —	Expended	Expended		
	Dec. 23, 1908–June, 1909, .	$4,927 43	$1,642 48A	$1,642 48	
	Day and evening: —	Estimates	Estimates		
	Sept., 1909–Dec. 31, 1909, .	$6,800 00	$3,400 00B		
	June 1, 1910–Dec. 31, 1910,.	20,000 00	10,000 00B	13,400 00	15,042 48
Natick, . .	Evening school: —	Expended	Expended		
	Sept., 1908–June, 1909, .	$254 58	$127 29A	$127 29	
		Estimates	Estimates		
	Sept., 1909–Dec. 31, 1909, .	$156 00	$78 00B		
	Jan. 1, 1910–Dec. 31, 1910, .	350 00	175 00B	253 00	380 29
New Bedford, .	Evening school: —	Expended	Expended		
	Sept., 1907–June, 1908, .	$635 24	$211 75A		
	Sept., 1908–June, 1909, .	2,233 18	446 64A	$658 39	
	Day and evening: —	Estimates	Estimates		
	Sept., 1909–Dec. 31, 1909, .	$4,500 00	$2,250 00B		
	Jan. 1, 1910–Dec. 31, 1910, .	16,000 00	8,000 00B	10,250 00	10,908 39
Northampton, .	Day school: —	Estimates	Estimates		
	Sept., 1909–Dec. 31, 1909, .	$5,000 00	$2,500 00B		
	Jan. 1, 1910–Dec. 31, 1910, .	10,000 00	5,000 00B	$7,500 00	7.500 00
Taunton, . .	Evening school: —	Expended	Expended		
	Sept., 1907–June, 1908, .	$385 69	$192 85A		
	Sept., 1908–June, 1909, .	462 78	231 39A	$424 24	
		Estimates	Estimates		
	Sept., 1909–Dec. 31, 1909, .	$462 78	$231 39B		
	Jan. 1, 1910–Dec. 31, 1910, .	462 78	231 39B	462 78	887 02
Waltham, .	Evening school: —	Expended	Expended		
	Sept., 1907–June, 1908, .	$1,340 58	$446 86A		
	Sept., 1908–June, 1909, .	1,253 33	417 78A	$864 64	864 64
Worcester, .	Day school: —	Estimates	Estimates		
	Jan. 1, 1910–Dec. 31, 1910, .	$17,910 00	$8,955 00B		
	Evening school: —				
	Jan. 1, 1910–Dec. 31, 1910, .	$4,500 00	2,250 00B	$11,205 00	11,205 00

FINANCIAL STATEMENT OF THE INDEPENDENT INDUSTRIAL SCHOOLS. (AMOUNTS EXPENDED, AND ESTIMATES.) — *Concluded.*

School.	Period of instruction.	Cost of maintenance.	Amount of reimbursement.	Total of reimbursements.	Total appropriation required: expended, and estimates.
Boston,	Evening school: — Sept., 1908–June, 1909,	Expended $15,985 63	Expended $3,197 12A	$3,197 12	$20,747 12
	Sept., 1909–Dec. 31, 1909,	Estimates $8,700 00	Estimates $4,350 00B	17,550 00	
	Jan. 1, 1910–Dec. 31, 1910,	26,400 00	13,200 00B		
Brockton,	Evening school: — Sept., 1908–June, 1909,	Expended $1,643 98	Expended $821 99A	$821 99	2,421 99
	Sept., 1909–Dec. 31, 1909,	Estimates $1,000 00	Estimates $500 00B	1,600 00	
	Jan. 1, 1910–Dec. 31, 1910,	2,200 00	1,100 00B		
Cambridge,	Evening school: — Sept., 1907–June, 1908,	Expended $5,717 52	Expended $1,905 84A	$3,986 06	9,223 56
	Sept., 1908–June, 1909,	6,240 66	2,080 22A		
	Sept., 1909–Dec. 31, 1909,	Estimates $3,275 00	Estimates $1,637 50B	5,237 50	
	Jan. 1, 1910–Dec. 31, 1910,	7,200 00	3,600 00B		
Chicopee,	Evening school: — Sept., 1908–June, 1909,	Expended $1,218 90	Expended $609 45A	$609 45	2,070 57
	Sept., 1909–Dec. 31, 1909,	Estimates $922 25	Estimates $461 12B	1,461 12	
	Jan. 1, 1910–Dec. 31, 1910,	2,000 00	1,000 00B		
Montague,	Day school: — Sept., 1908–June, 1909,	Expended $3,663 59	Expended $1,831 80A	$1,831 80	5,301 75
	Sept., 1909–Dec. 31, 1909,	Estimates $1,312 40	Estimates $656 20B	3,469 95	
	Jan. 1, 1910–Dec. 31, 1910,	5,627 50	2,813 75B		
Pittsfield,	Evening school: — Sept., 1908–June, 1909,	Expended $543 64	Expended $271 82A	$271 82	846 82
	Sept., 1909–Dec. 31, 1909,	Estimates $450 00	Estimates $225 00B	575 00	
	Jan. 1, 1910–Dec. 31, 1910,	700 00	350 00B		
Walpole,	Evening school: — Sept., 1908–June, 1909,	Expended $161 10	Expended $80 55A	$80 55	180 55
	Jan. 1, 1910–Dec. 31, 1910,	Estimates $200 00	Estimates $100 00B	100 00	

Total reimbursement for expenditures up to June 30, 1909,		$15,008 99
Total estimates of reimbursement for estimated expenditures from September, 1909, to Dec. 31, 1909,	$20,789 21	
Total estimates of reimbursement for estimated expenditures from Jan. 1, 1910, to Dec. 31, 1910,	73,275 14	
		94,064 35
Total,		$109,073 34

It is the duty of the Board to submit to the Legislature the amounts which cities and towns are entitled to receive by way of reimbursement under section 4 of chapter 572 of the Acts of 1908. This section provides that any resident of Massachusetts may attend an independent industrial school in some other city or town (provided there is none in his own city or town) "upon payment by the city or town of his residence of such tuition fee as may be fixed by" the Commission on Industrial Education (the Board of Education). The Commonwealth is to repay the city or town one-half of any such payments. The following is a statement of the payments actually made by the cities and towns under this act and of the amounts that should be appropriated by the Commonwealth by way of reimbursement to such cities and towns.

The Commission on Industrial Education or the Board of Education approved the attendance and fixed the tuition as provided by the statute.

One-half of the tuition at the Montague Agricultural School of 17 pupils, at $60 per year, as follows (tuition paid): —

	Pupils.		
Leverett,	8	$240 00	
Sunderland,	3	90 00	
Shelburne,	1	30 00	
Wendell,	3	53 25	
Erving,	2	55 50	
			$468 75

One-half of the tuition at Northampton (Smith's Agricultural School) of 29 pupils, at $100 per year, as follows (tuition paid): —

	Pupils.		
Adams,	1	$35 00	
Amherst,	7	237 50	
Belchertown,	1	17 50	
Buckland,	1	17 50	
Charlemont,	2	67 50	
Deerfield,	1	50 00	
Hatfield,	4	185 00	
Southampton,	2	85 00	
South Hadley,	1	35 00	
Westhampton,	9	402 50	
			1,132 50
			$1,601 25

All the tuition fees due to the town of Montague have been paid. To the city of Northampton amounts are still due for which when paid by the cities and towns reimbursement to the extent of one-half must be made by the State, as follows: —

One-half the tuition at Northampton (Smith's Agricultural School) of 19 pupils, at $100 per year, as follows (tuition not yet paid, but for which when paid reimbursement should be provided): —

	Pupils.		
Chester,	1	$50 00	
Hadley,	5	170 00	
Southwick,	2	100 00	
Whately,	5	190 00	
Williamsburg,	6	226 00	
			$736 00

Total appropriations necessary for State's reimbursement for non-resident pupils attending independent industrial schools during the school year of 1908-09: —

For amounts already paid by the towns: —	
Montague school,	$468 75
Northampton school,	1,132 50
	$1,601 25
For amounts not yet paid, but due Northampton school,	736 00
	$2,337 25

FREDERICK P. FISH, *Chairman,*
ELLA LYMAN CABOT, *Clerk,*
SARAH LOUISE ARNOLD,
LEVI L. CONANT,
SIMEON B. CHASE,
THOMAS B. FITZPATRICK,
FREDERICK W. HAMILTON,
PAUL H. HANUS,
CLINTON Q. RICHMOND,

Members of the Board.

APPENDICES.

Appendix A.

REPORT OF JOHN T. PRINCE,

AGENT OF THE BOARD.

A BRIEF STATEMENT OF SOME OF THE CHANGES IN THE PUBLIC SCHOOLS IN THE PAST TWENTY-FIVE YEARS, AND THE PRESENT OUTLOOK.

School Buildings and Equipment, State Aid, Supervision, Meetings of Superintendents and Teachers, Teachers, — Normal Graduates and Salaries, Branches of Instruction, Free Text-books, Health, Duties of School Superintendents, Size of Schools, Absenteeism, etc., Years of Elementary Instruction, Special Schools, The Outlook.

REPORT.

To the Board of Education.

I began my service as agent of the Board in September, 1883. Since that time there have been great changes of educational conditions and practices in the State, probably as great as at any previous time of equal duration. It seems fitting that in this, my twenty-fifth annual report, I make a brief statement of some of these changes as I have viewed them, and point out what to my mind are some of the most obvious needs for the future.

School Buildings and Equipment.

Perhaps the most apparent difference between the educational conditions of twenty-five years ago and those of the present time is in the character of the school buildings. This difference is manifest not only in cities and large towns but also in the small rural towns. It is safe to say that there are many communities which now freely tax themselves thousands of dollars for school buildings where hundreds were grudgingly spent a quarter of a century ago. The amount expended for new buildings and permanent improvements alone during the school year ending June, 1884, was less than $1,000,000, while the amount reported last year for the same purpose was over $3,500,000. This increase is all the more remarkable in view of the fact that for the past fourteen years the average yearly expenditure for new schoolhouses has been more than $2,500,000. The long-continued payment of such large sums for new buildings would seem to make it unnecessary after a while to pay so much for this purpose, and yet statistics show that the expenditure is kept up year by year.

A comparison of the entire amount appropriated and paid by local taxation in the two periods under consideration is quite as significant as the comparison of expenditures for new buildings.

The amount raised by local taxation for all school purposes in 1883–84 was $6,413,967.12. Last year there was raised for the same purposes $18,693,399.23, or a gain of nearly 200 per cent., while the increase of valuation was only a little over 100 per cent. The amount expended in 1883–84 for each child between five and fifteen years of age was $15.40, as against $35.32 for each child in the year 1908–09.

State Aid.

The amount distributed to the smaller towns in 1883 from the income of the school fund was $68,642.28. This was practically all the outside aid which the towns received at that time. Later (1894), towns of low valuation received aid from the State on account of high school tuition paid to other towns. And later still (1902), a direct grant of $300 was made to certain towns toward the support of high schools. This sum was afterwards raised to $500. In 1903 the entire annual income of the school fund, instead of one half the income, as before, was distributed to the towns whose valuations did not exceed $2,500,000. The total amount distributed by the State last year to towns of low valuation, including the amount appropriated on account of union superintendencies, was more than $400,000.

It was feared by some that greatly increased aid by the State would tend to weaken local effort; but it has resulted in most instances in stimulating rather than in lessening the efforts of the towns. Such towns have found that by doing a little more themselves they could, with extra aid from the State, get and keep the best teachers. The result is that the poorest schools are no longer necessarily found in the smaller towns, as was once the case.

One deplorable result of increasing the payments to towns from the State fund was the abandonment of one kind of State assistance that had proved very effective. In 1896 a law was passed by which certain towns were reimbursed to the extent of $2 a week, paid to teachers of exceptional ability. As to the practical working of this law, I said in my report for the year 1901–02, page 247: —

The law relating to the State reimbursement of the advance in salaries of teachers of exceptional ability has been in operation more than six years. The practical working of the law during this time, and especially during the past two years, has been all that the promoters of the law could expect. Indeed, I doubt if an equal sum of money has ever been expended by the State to greater advantage to the schools of country towns than has attended the carrying out of this law. To my personal knowledge, the schools of more than one town have been entirely revolutionized by it. Towns which have heretofore thought themselves unable to pay more than $6 or $7 a week for teachers have been induced by the prospect of securing the desired aid from the State to pay $1 or $2 a week more, and thereby have been able to engage the services of graduates of normal schools and colleges, instead of young and inexperienced teachers. A comparison of the statistics of 1898–99 with those of the past year shows that the number of normal school graduates employed in these specially aided towns during the past three years has just about doubled. There are no statistics to show the extent to which college graduates are employed in these towns under the law, but that many of them are so employed is revealed by our visits of inspection. In a town recently visited I found three college graduates employed under the conditions of the law affording State aid, and all doing good service. It has been a query in my mind, as I have seen the good effects of the law, whether this form of State aid might not be amended and extended so as to solve in a large degree the problem of a proper adjustment of local and State support of schools. If, for example, this kind of assistance could be based upon the real needs and efforts of the people to help themselves, shown in part by the percentage of valuation paid for the support of schools, and if, further, the special conditions existing in exceptional towns could be considered by a competent Board, great good would be accomplished.

A form of assistance which proved so effective in changing the quality of the schools ought to be retained and the principle underlying such contingent aid by the State extended.

Generous as has been the State to towns of low valuation, there is still further need of assistance, as is shown by the following facts: last year there were no less than 65 towns in the Commonwealth in which teachers were paid an average of less than $40 a month, and in 27 towns the average wages were less than $36 a month, falling as low as $31 and $32 a month. Even these sums appear munificent beside the amount paid in these same towns twenty-five years ago. The gain that has been made in the past is a promise of still further gain in the future. When we consider the increased cost of living and the shortness of the school year — not more than eight months in these towns — we realize the inadequacy of the compensation paid. But these are not the only towns that need relief. There are towns of large size which tax themselves to the utmost and yet which are obliged to pay very low salaries. I have reverted in previous reports to these matters, and have suggested that there be fixed by law certain qualifications for all teachers of the State to whom a minimum salary be paid, the State assuring financial conditions in which, with reasonable local effort, teachers will be properly paid.

SUPERVISION.

A record of the growth of skilled school supervision in Massachusetts during the past quarter of a century constitutes an interesting and important chapter in the educational history of the State and of the nation.

In the year 1883–84 there were 88 superintendents of schools in the State, but many of these were superintendents only in name. At that time it was not uncommon for school committees to appoint one of their number, or one of the clergymen of the town, as superintendent, at a nominal salary. Thirty-nine of the 88 superintendents received less than $500 a year for their services, and there were others who received but little more. Probably there were at that time less than 40 superintendents who could be called professional, and these were confined to the superintendents of schools in cities and the larger towns. The progress of skilled supervision had been slow, as over forty years had elapsed since the first superintendent was appointed in Springfield. But good missionary work had been done. In addresses by the secretary and agents of the Board all over the State, the cause of skilled supervision was advocated, with the result that, when the plan of district supervision was presented in the Legislature of 1888, it was readily accepted as an optional measure. By this law two or more towns, each of whose valuation did not exceed $2,500,000, and the aggregate number of schools in all of which was not less than 30 nor more than 50, were authorized to unite for the employment of a superintendent. The towns forming such a union were assisted by the State to the extent of $1,000 a year, one half of which amount was to be paid towards the superintendent's salary, which must be at least $1,250 a year. Certain amendments were made to this law as a voluntary measure, and a majority of the towns availed themselves of the privilege, until in 1900 the plan was made compulsory, and was extended so as to cover every city and town of the Commonwealth. Under the law at present every city and town must employ a superintendent, unions of towns being made somewhat on lines already described.

The chief difference between the optional law first passed and the present law is in the lessening of the minimum number of schools in a union to 25, in the raising of the minimum salary of the superintendent to $1,500, and in the limitation of selection by committees of State-aided union superintendents to candidates approved by the State Board of Education.

This law became in force in 1902, and was promptly obeyed by nearly all the towns; so that now every town in the State, with one exception[1], has a well-qualified superintendent, with plenty of time to really superintend the schools. Thus it is that skilled supervision in Massachusetts has extended during twenty-five years from what was done in the cities and larger towns by less than 40 superintendents to what is now done in the smaller as well as in the larger places by 191 superintendents. It is doubtful if there is any other place in the world of the same size that can show so great a change of supervisory conditions.

As good as these conditions are they can, I believe, be made better. In respect to the union superintendencies, three possible changes occur to me: —

First, the advisability of having the unions defined by some competent board, say the State Board of Education, and of continuing them as formed for a certain definite time, say five years. This provision would prevent the changes incident to the present plan of local selection.

The other changes that I would suggest relate to the salaries and terms of service for which superintendents are employed. Instead of $750, which the union of towns is now obliged by law to raise, I would place the minimum at $1,000, with the provision that the State pay as much more, making the minimum salary of the superintendent $2,000. I would suggest also that the tenure of office for well-qualified superintendents be strengthened so as to render it impossible for such superintendents to be dismissed for a certain period except for cause.

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[1] The exception is Gosnold, an inaccessible town with but one school.

It is a delicate and difficult matter to control in any way appointments of city or single town superintendents, but some recent events seem to indicate a want of wisdom or sincerity on the part of school boards in the selection of competent men. The professional standards of superintendents of cities and large towns should certainly be as high as those of the smaller towns. Might it not be well, therefore, for the same or similar methods of selection to be adopted for all superintendents that are now employed in the selection of union superintendents? This plan, carefully executed, might raise the standard of professional efficiency in superintendents of cities and large towns, or it might at least prevent extreme cases of unfit appointments.

Meetings of Superintendents and Teachers.

The cultivation of a professional spirit among superintendents and teachers has resulted in increasing the number of educational meetings and in making them better. Besides the institutes and county association meetings, which have continued for half a century, small local meetings are now held under the inspiration and guidance of the superintendents. Some of these meetings are for a few neighboring superintendents and some are for the teachers of a town or union district. In all of them, matters are discussed which are closely connected with the work of the schoolroom, quite in contrast with the general and abstract subjects which formerly received attention.

Teachers.

In estimating the degree of educational progress, one has to consider primarily the ability of the teaching force. All other conditions pale into insignificance before this all-important question. Buildings, equipment, and even supervision may be ever so good, but unless the teachers do their work well, or unless they are capable of doing their work well, the schools will be poor and will continue to be so. As to the merits of the schools of the present compared with the schools of twenty-five years ago, there can be no doubt in the mind of any school inspector thoroughly acquainted with the schools of both periods. To convince others, however, of the great improvement that has been made, it may be necessary to call attention to certain improved conditions of the present time contrasted with those of the earlier time. Some of these contrasted conditions have been spoken of. Quite as significant as these is the contrast of the professional preparation of teachers.

In the year ending June, 1884, 2,240 teachers of the State were reported as having graduated from normal schools. In the year ending June, 1909, the number of graduates of normal schools was 7,724. The difference in this respect is even more marked by a comparison of the number of graduates in certain counties. In the three western counties of Berkshire, Franklin and Hampshire, but 83 graduates of normal schools were employed during the year 1883–84, or a little more than 6 per cent. of the entire number. Last year there were employed in these counties 519, or 41 per cent. of the entire number.

The improved conditions in these counties may be still further inferred from a comparison of salaries paid in the two periods under consideration. In the year 1883–84 the average amount paid to the 1,262 female teachers of these counties was $27.17 a month. Last year the average amount paid to the same class of teachers was $45.98.

I have recommended in past reports that a minimum of teachers' qualifications be fixed by law, the least requisite being the completion of a course in a State Normal School or its equivalent. We have so nearly approached that limit in the Commonwealth that it is fair to ask if the time has not come for its compulsory adoption.

Branches of Instruction.

The studies now required to be taught in the public schools are not greatly different from those which were required twenty-five years ago. Physiology and hygiene was made a required study in 1885, and is now pursued in most schools beyond the primary grades. Drawing was earlier made a required study, but it is only in recent years that it can be said to be universally taught.

Various branches have been added from time to time to the list of studies which may be taught, until by the adoption of the clause "such other subjects as the school committee may consider expedient," practically any and all branches of study may now be pursued.

Among the optional studies, several so-called high school studies, such as geometry, algebra and Latin, have within recent years been introduced into the upper grammar grades of some places, but their place in these schools is by no means assured. In a special report made to the Board twelve years ago, I gave the results of inquiries which showed that from one eighth to one fifth of the schools reporting had one or more extra studies in the upper grammar grades. Very likely the proportion of such schools is even less now than it was twelve years ago.

Nature study or elementary science is a comparatively new branch of instruction, it being taught in many grammar schools without a text-book and from objects. Thus presented, it becomes a very good test of the teaching power of teachers. Its introduction into the schools, therefore, increases as the number of trained teachers increases. Its worth as a means of sense development and of an awakening of interest in the objects of nature has been demonstrated where it has been fully and continuously tried.

Probably the greatest and most significant change in the elementary school curriculum during the past twenty-five years has been in manual training. Twenty-five years ago it was found in few schools, and then only in connection with drawing. It is difficult to say how extensively manual training has been followed in the schools, but it is safe to say that more than half of the graded schools of the State include sloyd, or something akin to it, as a regular branch of study. Lately there has been a growing disposition on the part of makers of courses of manual training to depart from the regulation models and to add more and more the making of useful things, looking in some cases to the making of things for a profit. There is a growing disposition, too, to add to the course. In the high schools the practical tendency toward vocational study is even more pronounced. Separate commercial and industrial courses are in some places offered, and in a few cities separate schools for the study of manual arts have been founded.

Many village and country schools have school and home gardens, with a tendency in a few towns to carry on the study further, into the more formal study of agriculture. This work is done by children of both sexes, though in some schools the boys are expected to take the garden work and sloyd while the girls have regular lessons in sewing and cooking.

Thus it will be seen that, while great activity has been exercised along industrial lines during the past few years, it has been a period of trial and experimentation. Nor is the end of experimentation in sight. That there will be a steady growth in a better preparation for vocational life no one doubts. But the precise form of that preparation is not yet assured. The selection of work may be begun in the later grammar grades, and assume ideal factory conditions, as in the Agassiz and Hancock schools in Boston, or it may partake more of the home occupations of the Hyannis Normal School in all grades below the high school.

If the point of departure from regular and formal school work is at the close of the grammar school course, the course pursued may assume the form of an agricultural school, like Montague, or of a technical school, like those in Springfield and Newton; or the school may have special courses of industrial training, like the industrial course of the Chicopee high school. The time of pupils may be given largely to vocational work, as in the Boston Trade School and Lawrence Industrial School, or it may be equally divided between the school and the local shops, as in Fitchburg.

But whatever is done for education in the future, such conditions should be secured as (1) to afford abundant cultural as well as vocational training for all, (2) to give to the youth of both sexes opportunity for a free and rational choice of vocation, and (3) to provide a good foundation for such a vocation, be it profession or trade, as the youth may choose. With such conditions assured the public schools will be truly common schools in that they will meet the common needs of all who are educated in them.

Free Text-books.

Amid not a little opposition the free text-book law was passed in 1884. The benefits of the plan were not entirely unknown, for when the compulsory law was passed 16 cities and towns had availed themselves of the permissive law which was passed several years before. One unlooked-for effect of the adoption of the plan was the marked increased attendance upon the high schools. By reason of its adoption it was estimated that there was an immediate increase of high school membership of fully 10 per cent.

While certain disadvantages of the plan have been found, its advantages are too obvious for it to be discontinued. One disadvantage is in a measure overcome by the passage of a law permitting school committees, under certain conditions, to give to pupils three books which they have used continuously in schools.

Health.

Most of what has been accomplished for the protection and promotion of the physical health of the children has been done during the past quarter of a century. The placing of physiology and hygiene among the required studies of the public schools and of physical training among the optional branches, the requirement of a State inspection of all schoolhouses for ventilation and lighting, the establishment of playgrounds in the cities, and the provision for local medical inspection in all the schools of the Commonwealth, — all in the interest of better physical living for the young, — make a chapter of health provisions of which any State may be proud.

Of the latter measure, it may be said that it is too soon to judge fully the merits of medical inspection from any results that can be measured. It is, perhaps, enough to say that school physicians in 281 cities and towns are examining the children, and that the sight and hearing of all the children are tested and defects are noted.

The fact that some cities and towns are now voluntarily employing physical directors and school nurses is a warrant for the belief that the employment of such persons will be made universal by statute law, and that thus the schools may, by preventive as well as by corrective measures, preserve the physical well-being of the children.

Duties of School Superintendents.

Most of the duties devolving upon a superintendent of schools are determined by the local school board. As a consequence, probably no two superintendents have to perform precisely the same duties. So varied and sometimes so unprofessional are these duties that in several of my reports I have questioned whether some of their powers might not be prescribed by statute law; though it is doubtless true that there has been a steady improvement in the character of the work required of and performed by superintendents during the past few years.

An inquiry was made ten years ago as to the duties of such officials, and again a similar inquiry was made last year. In a comparison of the results of the two inquiries it was found that a considerable advance had been made, especially in respect to those duties which involved professional knowledge and skill, such as the selection of text-books and the nomination or certification of teachers. But even such duties are sometimes performed by school committees, or very grudgingly given to the superintendents. In view of this fact, and in view of the fact that 90 per cent. of the school boards give reasonably full powers to the superintendents in the administration of the schools, the question presents itself whether it would not be well for the statutes to prescribe certain general duties for the superintendents, such as the nomination of teachers, the selection of text-books and apparatus, the making of a course of studies, and the inspection and direction of the teachers' work.

Size of Schools.

One improvement of school conditions, which all interested in the welfare of the schools are trying to effect, is the lessening of the number of pupils to a teacher. This, in spite of the difficulties in the way, is being slowly accomplished. Schools of over

50 pupils, once so common in city schools, are now rare to find outside of the large cities; and even in the larger cities there has been a great change for the better.

In statistics recently published of the number of pupils per teacher in 23 cities, it is shown that in 14 cities the average membership was less than 35, and that the highest average reported was but 40.8.

The returns for the State at large show that, while the increase in the average membership of the schools in the past twenty-five years is 70 per cent., the increase in the number of teachers is 83 per cent., and this in spite of the fact that many of the rural schools have been consolidated.

It is hoped that ere many years it will be forbidden by law for any teacher to have more than 30 pupils.

Absenteeism.

In several of my reports I have referred to the apparent non-enforcement of the law relating to school attendance, especially in country towns. One cause of laxity in this respect is the unwillingness of local boards and attendance officers to proceed against neighbors and friends for violating the law. In consequence of the unwillingness or inability of local officials to enforce the law of school attendance, I have urged the appointment of one or more State attendance officers, persons who will be free to enforce the law, and who will do much to make the parents of truants co-operate with the authorities more faithfully than they do in keeping their children in school. Another means of reaching the difficulty is the imposition of small fines upon parents, which, rigidly and persistently followed up, will make them feel more keenly their responsibility as parents. It is safe to say that much of the nonattendance of children at school is due to a want of proper parental authority, and anything done to strengthen that authority will help to keep the children in school.

Still another means of preventing truancy and its attendant evils is to establish a system of early "placing out." As soon as it is known that the parents are persistently neglectful of their most obvious duty — and this fact should be discovered before actual wrong is committed — the State should, for its own protection as well as for the good of the children, take them from the neglectful home and place them where they would be properly cared for. By this means much poverty and crime would be prevented and a great saving of expense to the State would be effected.

YEARS OF ELEMENTARY INSTRUCTION.

There has of late been a very decided tendency to advance the age at which children can first enter school from five years to six, and at the same time limit the elementary school course to eight years. There are good reasons for this change, and it is sometimes not difficult to induce committees to make the change, especially as it involves decreased expense. But the interests of the children before the age of six should not be lost sight of. No doubt children are better off to defer formal school work until they are six years old, or even later; and some children will be properly cared for in the town at whatever age they are permitted to attend school. But there are many children who are not thus cared for, and who early need the protection of the school.

At various times during the past ten years I have urged school authorities to provide subprimary classes for children under six years of age, the course in such classes to consist of many of the kindergarten occupations and games, and to continue for one year. While the benefits of a subprimary course are especially apparent for the children of poor homes, the course, as a means of connection between the home and school, is really needed for all children. This course will be found useful also as a means of preparation for the more formal work of the school.

In some places the elementary course has been reduced from nine to eight years without changing the age of entrance, — five years. I have shown in past reports that such a change affords little or no gain of time; that is, the time required to complete an eight years' course is not essentially different from the time required to complete a nine years' course, provided that the end to be reached is entrance to a first-class high school, and provided, also, that the age of beginning the elementary course is five years.

Special Schools.

By request of the former secretary of the Board, I have for some years past quite frequently visited several of the special schools which are supported wholly or partly by the State. Of the schools thus visited, six are for the deaf and one for the blind.

I have also visited, at irregular times, the schools for delinquents in Westborough and Lancaster and the school for the feeble-minded in Waltham. All these schools are doing excellent service, and some of them are models of their kind.

In reviewing my notes of inspection, I find two points of criticism most frequently mentioned, namely, insufficient industrial work and incomplete or no proper plan of following up those who leave these institutions. In respect to the former of these criticisms, it should be said that some of the schools, notably the Waltham school for the feeble-minded, are giving to the children much valuable vocational training, and that all of them are doing much more in this regard than was done ten years ago.

Another class of schools required to be visited by the Board of Education I have also inspected. These are the six training schools for the commitment of habitual truants, absentees and school offenders.

I have in several reports given my criticisms of these schools, and have also at various times offered some recommendations for the proper apprehension and care of juvenile delinquents. I can do no better at this time than quote the suggestions I made at the close of my report upon these training schools made ten years ago. They are suggestions with reference to possible means of improvement, and impliedly indicate some criticisms of present practices.

1. That the buildings be inspected by the State Board of Health, with the view of ascertaining whether the schoolrooms and dormitories are properly ventilated.

2. That the school day be lengthened to six hours for all the pupils, one hour and a half or two hours of which to be devoted to physical and industrial training.

3. That during the time that the school is in session the time for household and farm work be limited to two or three hours a day,

and that there be such a rotation of duties in that work as to make it useful as a means of training.

4. That there be a skilled supervisor over all the schools, to advise in the selection of teachers, to lay out the work of the schools and to advise and direct teachers as to methods of teaching.

5. That those persons only be appointed as teachers who are by personal sympathy, patience and professional ability especially fitted to teach this class of children.

6. That the greatest care be taken in the selection of the pupils' books, particularly in the selection of books for reading out of school hours.

But what is really needed is an entire reorganization of the means of treating juvenile offenders. In a careful review of the situation, made in my report of January, 1906, I ventured to offer suggestions of relief, some of which since that time have been adopted. The suggestions were as follows: —

1. A required medical inspection of all the schools, both public and private, by which it may be known what special treatment is needed for every abnormal child.

2. The separation of all defectives and delinquents into such groups that proper protection and treatment may be assured to every individual. This provision may include the State's right and duty to give its service of protection and training to every child who is denied such service by parent or guardian. It may also include the State's right and duty to hold in control indefinitely moral imbeciles and all others whose influence is a positive menace to the morals of the community.

3. The establishment of a separate court for all juvenile offenders of every description, with power to reach out to the causes of offences, be they debasing surroundings, neglectful parents and guardians, or corrupting persons of any kind.

4. The maintenance of special schools, by which every abnormal child shall have at majority, so far as he is able to acquire it, a good trade or other means of support.

5. The adoption of placing-out and probation systems, by which every abnormal and uncared-for child shall be early placed in a good home or separate special school, and every delinquent child shall be given a fair chance to live a useful life.

6. The appointment of an administrative board, which will have control of all matters relating to the apprehension and care of defective and delinquent children.

The Outlook.

I have endeavored to give in this report a record of some of the changes for the better that have taken place during the past twenty-five years, and, in the light of past experience, to offer some opinions as to future needs and possibilities. If this record and these opinions are in any measure correct, the educational prospects for the State are indeed most encouraging. Never before in the State's history has so much been spent for education of all kinds as now, and never have the people seemed more ready to spend still larger amounts for the same cause. The great beginnings that have been made in medical inspection are but the promise of what will be done later for the preservation and promotion of the physical welfare of the children. The cultural studies have been broadened and deepened so as to make possible the benefits of higher education to all who want it. The fullest industrial and vocational needs of the young are sure to follow the suggestive and varied experiments which are now being tried in all parts of the State. The great work which has been done in the past for defectives and delinquents is seen to be but the beginning of what may be done in the way both of prevention and of correction.

So it is that the signs for the future are very auspicious. Interesting and great as the educational achievements have been in the past twenty-five years, those of the next twenty-five years are likely to be more so. Happy are they who are privileged to work for their fulfillment.

Respectfully submitted,

JOHN T. PRINCE.

Jan. 1, 1910.

Appendix B.

REPORT OF JAMES W. MACDONALD,

AGENT OF THE BOARD.

MATHEMATICS IN THE HIGH SCHOOLS OF MASSACHUSETTS.

REPORT.

To the Massachusetts State Board of Education.

In my visitation of high schools during the year now ending (1909) I have tried to make a special study of the condition and treatment of mathematics, and to ascertain to what extent it is possible to correlate the instruction in this branch with the instruction in science.

It has not seemed to me worth while in this report to present tables showing, for all the high schools of the State, the time allotment given to each branch of the subject and the year in which it is offered, together with other particulars, as I have done previously in reports on business and industrial education (1905), on natural science (1906), and on languages last year (1908). In all these respects about six-sevenths of the high schools of the State have very similar courses in mathematics. Some of these schools give four periods per week to algebra and geometry the first two years and some give five; but other conditions often make these courses practically equivalent. Another difference is that a few schools, about thirty in all, mostly city schools, offer a brief course in trigonometry the last year. In most cases, however, only a small number of pupils elect it, sometimes none, and often the short time assigned to it is trenched upon by mathematical reviews in other branches. The greatest difference, perhaps, is found in schools that have business courses. In about two-fifths of these commercial arithmetic is placed in the first year, and, in the rest, is about equally divided among the other three years. Its time allotment also varies considerably.

In the other seventh of the high schools of the State, wholly in the smaller towns, the mathematical course is shortened by a year, chiefly on account of the limitation of the teaching force. In these cases the pupils who are fitting for higher institutions have to get some of the necessary preparation by their own independent efforts, and, where the pupils have the right " stuff " in them, the results are not always to the discredit of the small school. These pupils, though their knowledge may lack finish, get a power to think and analyze for themselves that those helped and trained in every detail do not. But, notwithstanding this, the notion seems to be steadily growing that nothing can be learned without a teacher.

A few sample mathematical courses, taken from working high school programs, will, I think, with a little explanation, make sufficiently clear the quantity and arrangement of mathematics in Massachusetts high schools. The letter *R* it will be observed indicates that the subject is required in all courses; the letter *E* that it is elective, or, oftener, that it is required in some courses but not in all. The numbers indicate the recitations per week, varying in length from thirty to fifty minutes; where the periods are shortest, the classes are generally small.

No. 1. — *Mathematics in a Rural High School, with Two Teachers and about Thirty Pupils.*

First year,	Algebra, *R*,	4
Second year,	Geometry, *R*,	4
Third year,	Review algebra and geometry, *E*,	5
Fourth year,	No mathematics.	

No. 2. — *School similar to No. 1, except slightly smaller.*

First year,	Algebra, *R*,	4
	Commercial arithmetic, Bookkeeping, *E*,	5
Second year,	Geometry, *R*,	5
Third year,	No mathematics.	
Fourth year,	Review algebra and geometry,	5

These two courses in mathematics are fairly typical for about sixty of the smaller high schools of the State, some of which have three teachers. On the other hand, some of the two-teacher high schools have courses running through the four years.

Aside from the business mathematics, which is found to some extent in most of these schools, they agree in leaving mathematics out of one of the last two years, mostly as in No. 2.

A few schools that may be classed with these extend the first course in algebra into the second year and have plane geometry the third year, a plan that would seem to be needless if the first-year pupils are qualified to be in the high school.

No. 3. — *Mathematics in a High School, with Three Teachers and about Sixty Pupils, situated in a Manufacturing Town of Three Thousand Inhabitants.*

First year,	Algebra, *R*,		5
	Bookkeeping, Commercial arithmetic,	*E*,	5
Second year,	Geometry, Advanced algebra,	*R*,	5
Third year,	Solid geometry, *E*,		2½
	Bookkeeping, Commercial arithmetic,	*E*,	5
Fourth year,	Review mathematics, *E*,		2½
	Bookkeeping, Commercial arithmetic,	*E*,	4

No. 4. — *Mathematics in a High School, with Five Teachers and One Hundred and Twenty Pupils, situated in a Suburban Town of Forty-three Hundred Inhabitants.*

First year,	Algebra, *R*,	5
	Commercial arithmetic, *E*,	5
Second year,	Geometry, *E*,	5
	Bookkeeping, *E*,	5
Third year,	Review mathematics, *E*,	5
	Bookkeeping, *E*,	5
Fourth year.	Solid geometry, *E*,	2
	Algebra, *E*,	2

No. 5. — *Mathematics in a High School, with Five Teachers and One Hundred and Twenty-five Pupils, situated in a Manufacturing Town of a little over Four Thousand People.*

First year,	Algebra, *R*,		4
Second year,	Geometry, *R*,		4
	Commercial arithmetic, *E*,		3
Third year,	Plane geometry, Solid geometry,	*E*,	4
	Bookkeeping, *E*,		4
Fourth year,	Advanced algebra, *E*,		4
	Advanced bookkeeping, *E*,		4

No. 6. — *Mathematics in a High School, with Eleven Teachers and Three Hundred Pupils, situated in a Suburban Town of Twelve Thousand People.*

First year,	Algebra, *R*,	5
	Commercial arithmetic, *E*,	5
Second year,	Geometry, *E*,	4
Third year,	Reviews, *E*,	4
Fourth year,	Solid geometry, Advanced algebra, } *E*,	3 or 4

No. 7. — *Mathematics in a City High School, with Thirteen Teachers and about Three Hundred Pupils.*

First year,	Algebra, *R*,	4
	Commercial arithmetic, *E*,	4
	Bookkeeping, *E*,	4
Second year,	Geometry, *E*,	4
	Bookkeeping, *E*,	2
Third year,	Review algebra, *E*,	3
	Geometry, *E*,	4
Fourth year,	Review plane geometry, Solid geometry, } *E*,	3
	Review arithmetic, *E*,	2

No. 8. — *Mathematics in a City High School, with Twenty-three Teachers and about Six Hundred and Seventy Pupils.*

First year,	Algebra, *E*,	5
Second year,	Geometry, *E*,	5
	Commercial arithmetic (half year), Bookkeeping (half year), } *E*,	3
Third year,	Plane geometry, Solid geometry, } *E*,	4
Fourth year,	Higher algebra, *E*,	4

These courses, No. 3 to No. 8 inclusive, are typical of the mathematics as found in about one hundred and eighty of our Massachusetts high schools. The remaining high schools, about thirty in number, including all the purely classical and the leading technical schools, are those in which trigonometry is offered, of which three illustrations will, I think, suffice.

No. 9. — *Mathematics in a Suburban High School, with Eight Teachers and about Two Hundred and Fifty Pupils, situated in a Town of nearly Thirteen Thousand People.*

First Year,	Algebra, *R*,	4
	Commercial arithmetic, *E*,	3
Second year,	Geometry, *E*,	4
	Bookkeeping, *E*,	3
Third year,	Geometry, *E*,	2
	Algebra, *E*,	3
	Bookkeeping, *E*,	3
Fourth year,	Solid geometry, *E*,	2
	Trigonometry, *E*,	2

No. 10. — *Mathematics in a City High School, with Thirty-four Teachers and over a Thousand Pupils.*

First year,	Algebra, *R*,	5
	Bookkeeping, *E*,	5
	Algebra, Mental arithmetic, } *E*,	5
Second year,	Geometry, *E*,	5
	Commercial arithmetic, *E*,	2½
Third year,[1]	Review algebra, Review geometry, } *E*,	5
	Bookkeeping, *E*,	5
Fourth year,	Geometry, Trigonometry, } *E*,	5

No. 11. — *Mathematics in One of the Technical High Schools of the State, of which there are at present Seven.*

First year,	Algebra, *E*,	4
	Practical problems, *E*,	4
Second year,	Geometry, Mechanics, } *E*,	5
	Bookkeeping, *E*,	3
	Geometry, *E*,	4
Third year,	Plane geometry, Advanced algebra, } *E*,	4 or 5
	Bookkeeping, *E*,	3
	Shop mathematics, *E*,	3
Fourth year,	Solid geometry (six months), Trigonometry (six months), } *E*,	5
	Trigonometry, Applied mathematics, }	5
	Analytical geometry (four months),	5

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[1] Also special mathematics for students fitting for college, 5.

From these illustrations of mathematical courses in high schools, it will be noted that the algebra of the first year is generally required, that the geometry of the second year is generally elective, and that the mathematics of the last two years aside from commercial arithmetic and bookkeeping, and excepting technical schools, is almost wholly review and drill in algebra and geometry, with a view simply to a preparation for the higher institutions. While, however, the second-year geometry is marked elective, it is required for all except those taking the commercial course.

It is also to be noted that aside from commercial arithmetic and bookkeeping, practically all the mathematics in the high school is purely abstract, more so in reality even than the programs indicate. This is because, as already suggested, these courses are the outcome of traditional notions of mental discipline and of requirements for admission to college. Excepting perhaps in some of the technical schools, even trigonometry, when it is offered, is treated in the same way and with the same end in view.

This is not by any means saying that everything mathematical in our high school courses, aside from the commercial instruction, is wrong. On the contrary, much of it seems to me to be good, and to rest on rational and sound educational theory. The opinion that a thorough grounding in the elements of algebra and geometry, if not advisable for all, is at least desirable for those whose occupations are to be along scientific lines or will have to do with arts like navigation and surveying, that rest on mathematics, — and that the mental training in concentration and application to be derived therefrom is a valuable asset for those who have it, — cannot, I feel, be too strongly reaffirmed in these days when there is so much on the wing that is superficial.

“ A man, ” says one, “ can learn to navigate a ship who only knows enough to use a sextant, and to follow the directions in a nautical almanac; then why should he spend time learning geometry, trigonometry or astronomy? What good would it be to him to know about spherical triangles, or about the science of latitude and longitude, except to be able to compute these by following specific directions? ”

" Nine-tenths," says another, " of all the geometry taught in the high school is absolutely of no use; the pupils do not like it; throw it out. "

Others are proclaiming a new way of acquiring the sciences. Henceforth, according to the new plan, there is to be no study of physics and chemistry as such, but the machinist, the cook, the electrician, the physician, — all, in short, whose occupations require any knowledge of these subjects, — can start in early and directly on their special pursuit, and learn the fundamentals " in such quantities and in such connections as they need them. " This would obviate their " learning any more stuff than they were obliged to, " as I once heard a boy express himself to his teacher in regard to preparation for college. If the plan works well there would seem to be no longer any reason why one intending to become an accountant should be bothered with so much preliminary work in arithmetic, spelling, etc. He could begin with bookkeeping, and pick up these other things *ex itinere.*

The truth, I fear, is that we Americans, to a large extent, are impatient of substantial preparation. We are eager to run the machine, but we do not care to thoroughly understand it. This we put up to the man in the repair shop.

A striking illustration of this tendency is showing itself in connection with the commendable movement to introduce instruction in agriculture and kindred subjects into rural high schools. Those of us who for years have seen the desirability of this step, cannot but be gratified at the zeal of the many new converts of late all over the country. This zeal, however, except in a few schools in our own State, is placing this instruction in the first year of the school.

Now, it is clear, on a moment's thought, that *scientific* agriculture presupposes considerable knowledge of the general principles of physics and chemistry, and also botany and physiology, this last subject so extended as to include the care and treatment of domestic animals. While it is not to be denied that much that is valuable about farming can be taught to students who have no preparatory instruction in these, — its fundamentals, so to speak, — yet it seems hardly to be questioned that by placing the subject in the last year, or the last two years, of the course, preceded by such instruction, a great deal more could be taught, and taught a great deal more intelligently, to say nothing of the fact that the boy would leave the school with the instruction fresh in his mind. But this arrangement involves time spent in preparation, which seems to many wasted. A superintendent expressed it when he said, "We want the farmers to see we are doing something, and they wouldn't give us credit for the preparatory work."

The usual excuse, let me add, for the earlier time allotment is that many pupils leave the high school before the last two years, and hence could not have it. If this notion prevails, and the practice is to be adopted of introducing studies in advance of their proper time in order to catch pupils who will not or cannot stay to prepare for them, then we must give up all expectation of doing intelligent work in our schools, and everything must be sacrificed to mediocrity.

Other illustrations of this tendency could be given in connection with other high school subjects, but not as yet in the case of mathematics. Here the old traditional belief in thorough fundamental training still prevails and prescribes the order of presentation for, at least, the first two years. Whatever criticisms I have to make will not touch the arrangement, but will concern details of treatment, methods and devices, and, to some extent, subject-matter. I shall try to show that in these respects there is considerable room for improvement.

At a meeting of the Association of Mathematical Teachers of New England, held last December in Boston, in connection with the American Association for the Advancement of Science, Prof. H. E. Clifford of Harvard College, one of the speakers, made this criticism on the mathematical instruction in our schools, — that it failed to cultivate in pupils the power of analysis. He had had, he said, opportunities to observe this in high school pupils, in graduates of high schools, in college students and in college graduates. My own observations lead me to believe that this criticism of Professor Clifford is fully justified, and in the course of this discussion I shall try to point out some of the reasons therefor.

ALGEBRA.

In the high school, algebra the first year is the almost universal practice, and this seems to be its rational place, inasmuch as it is the logical mathematical sequence of arithmetic, especially as arithmetic and algebra are but the parts of one branch of mathematics, or, in other words, algebra is arithmetic generalized. Their processes are identical, except that an algebraic solution retains traces of the analysis that in arithmetic disappears. Their difference is not so much in the use of letters to express quantities, as in the extension of the idea of number to include negative values, that is, values less than zero.

It is its wonderful facility in problems involving complex conditions (because, as I have said, it keeps more or less distinct the steps of the processes) that gives algebra its chief value as a mathematical instrument. Aside from its utility in this respect, it has a high educational value in three particulars; it tends to cultivate mental concentration, skill in analysis and the habit of referring all ideas and actions to sound basal principles, provided, of course, that the study is so conducted as to be made to do its perfect work.

As to this, it seems to me that in the high school algebra as a whole is taught much better than geometry is, or, perhaps, any other branch of mathematics. This is by no means saying that the instruction is above criticism. I think, however, that the text-books are responsible for the worst defects. They teach devices that are unscientific and sometimes unmathematical. Some of these seem insignificant, and would be of themselves hardly worth notice were it not for what they lead to.

A case in point is the use of the word "transpose," when in solving equations it is necessary to get rid of terms in one or the other of the members. It is a good rule in every science to select nomenclature that is as accurately descriptive as possible, for then, every time a word is used, it strengthens the idea for which it stands. For this reason it is better in naming a fraction to say *a* divided by *b*, than *a* over *b*.

The first objection to the word "transpose" is obvious; nothing of the sort is done; hence its use is misleading, and instead of re-enforcing a correct notion, it is constantly thrusting in a wrong one. No matter how much you explain to beginners the true process, the idea suggested by a word so frequently used will predominate in their minds.

But this is not the worst. The use of the word compels a resort to expedients that, to speak mildly, are irrational.

For illustration, suppose the equation $x + 5 = 12$, is given, to find the value of x. Any pupil intelligent enough to get into a high school will easily see that if he subtracts 5 from each side of this equation he will get $x = 7$, in accordance with a mathematical axiom which is familiar to him, or ought to be made so. He will also be easily led to realize that in this process he is working on the bedrock of mathematics.

A few years ago, while visiting a high school, I happened into a room where a beginners' class in algebra was having its first lesson in equations. Seven or eight pupils were sent to the blackboard and directed by the teacher to write the equation used above. They did so, and most of them seeing the solution by the natural process wrote the answer, $x = 7$, without waiting for the teacher to explain. The latter, however, saw that it would be impossible, if this were allowed, to justify the use of the word "transpose," so she had them erase this answer; and she spent almost a quarter of an hour explaining the rules for "transposition," and had the equation, very much against the will of one boy, solved thus: —

$$x = 12 - 5.$$
$$x = 7.$$

In all this there was not a word about the real principle and process that were concealed under this absurd circumlocution. In case the equation had been $x + a = b$, the utmost care, if necessary, should have been taken to lead the pupils to see that the solution, $x = b - a$, was not the result of transposing a, but of applying the axiom "Equals taken from equals leave equals;" and it would not, I may add, have required half the effort that the teacher in the case cited above had to exert to conceal this principle.

In the solution of equations (I am speaking of elementary algebra), if effective emphasis is laid on the underlying principles, as the best teachers of algebra are now doing, it will not only make the operations more intelligible to pupils, but will greatly simplify matters. As there are so many teachers who do not venture to do this because they do not find directions in the text-books, perhaps a brief discussion of a simple phase of the theory of equations will not be out of place in this report.

Take, for example, the equation already used, $x+5=12$. As we are to find the value of x, we must get this all by itself in one member of the equation, preferably the left, and the quantity indicating its value will constitute the other member. To get x by itself we have only to subtract 5 from $x+5$, but when we do this we are confronted by a mathematical principle that brooks no exceptions, and compels us to subtract an equal amount from the other member in order to retain the equality. With a class, the pupils should be required to state this principle or axiom, and to repeat it every time it comes into use, till it becomes as familiar to them as their own names.

Next, suppose the equation $x-7=6$. Here the purpose is the same as before, namely, to get x by itself; and as we did it in the former equation by subtracting 5, the amount added to it, we do it in this one by adding 7, the amount subtracted from it; but here again we are confronted with a principle that compels the addition of 7 to the other side also, giving $x=13$.

Next, suppose $5x=15$, where 5 is a multiplier of x. Following the analogy of the preceding cases, and the principle that if equals are divided by equals the quotients are equal, we get rid of it by division, and have $x=3$. So, too, if the equation is $\frac{x}{3}=7$, we pursue an analogous course, and in accordance with a corresponding axiom we get rid of the divisor 3 by multiplication.

What is true of these simple equations that we have used is true of any equation, no matter how complex it is or how many terms there are in each member. We *eliminate,* in the way described, all the terms we want to get rid of from either member. It is hardly necessary to add that the law for eliminating factors applies equally to a case like this: —

$$x - y = 3.$$
$$x^2 - y^2 = 21.$$

where we divide the second equation by the first, member by member, getting $x + y = 7$.

But that is not all. Suppose we have $x^3 = 27$. Here we simply want to get rid of the exponent 3, and, as in the former instances, to do so we reverse the process that it indicates. As it indicates a power, we extract the corresponding root, on the principle that equal roots of equal quantities are equal. A similar reasoning applies to such an equation as $\sqrt{x} = 6$.

Thus what appears to be six different processes is really but one when looked at in the light of the purpose and the general idea that direct them. Thus, too, the steps in solving equations become simplified in the minds of the pupils, especially when they learn that in addition to what has already been described, only one other operation on an equation is possible, — the substitution of equals for equals.

When pupils have been trained in the way I have tried to explain, and have come to see that the operations that can be performed on equations are few in number and based on familiar principles, they will not, I believe, be so dependent on the teacher's help as most of them now are. They will know what to look for, and will have the data for thinking and analyzing. I believe, too, that all these steps, even to the elimination of exponents and roots, should be taught together, at the very beginning of the treatment of equations. They will in this way aid in the comprehension of one another. Later they can be separated and treated more in detail.

All that I have said in this connection is so elementary and simple that some may think that I have dwelt upon it to too great length; but so many teachers and text-books ignore principles and lay the stress on perplexing rules that I feel justified in going into details as I have.

Another queer practice in teaching algebra is the manner of subtracting one quantity from another. One text-book gives this rule for this process: —

> It is evident that subtracting a positive number is equivalent to adding an equal negative number, and that subtracting a negative number is equivalent to adding an equal positive number. To subtract, *therefore,* one algebraic number from another, *change the sign of the subtrahend and then add the subtrahend to the minuend.*

It is a poor excuse for this to say that the "result is the same," for in that way we could justify this rule for adding two quantities: change the sign of one of them and subtract it from the other.

Undoubtedly the purpose of the above-mentioned device in subtraction is to avoid an assumed difficulty in subtracting negative quantities from positive quantities, and positive from negative, but its effect is to conceal from the pupils the true meaning of what they are doing. Another objection to it is the difficulty (after signs have been changed) of finding an error if one has been made, especially when the problem is complex.

The principle of subtraction in algebra is simple, and in no way differs from the principle of subtraction in arithmetic, and may be stated thus: When a quantity is subtracted from a larger quantity, the remainder *must* be positive; and when a quantity is subtracted from a smaller quantity the remainder *must* be negative.

To illustrate: 3 from 7 *must* leave 4, because 7 is 4 larger than 3. For the same reason, -2 from 9 *must* leave 11; -9 from -3 must leave 6; $-11a$ from $-3a$ must leave $8a$; and $-4x$ from $3b$ must leave $3b + 4x$.

So, too, 8 from 3 *must* leave -5, because the minuend 3 is 5 less than the subtrahend 8. For the same reason, 2 from -5 *must* leave -7; -4 from -9 must leave -5; and 0 from $-5x$ must leave $-5x$, because that is the amount that 0 is greater than $-5x$. In short, the pupils should be taught to observe how much greater or less the subtrahend is than the minuend, just as they do in arithmetic, and give the difference the sign accordingly. A little practice will make this easy.

I suspect that the text-book rule for subtraction originated in an attempt to avoid the notion that negative quantities are less than zero. We speak of some quantities as being greater or less than others. For example, in a series of numbers, say from 15 to 0, all admit that each is one (or one a, or one x, or one xy, or whatever the unit may be) less than the preceding, but when 0 is passed, some shrink from admitting that the decrease continues because they cannot see how "a value can be less than zero;" and yet this is just what negative quantities are, even when zero stands for nothing, as it sometimes does.

The text-books treat negative quantities in a very vague way. Some of them get around the difficulty by saying that they are the opposite of positive quantities, but they fail to explain what they must be, in order to be "opposite" to positive quantities whose only property is that they are values greater than zero.

One book says: "In financial transactions we may consider assets as + and debts or liabilities as —." Well, I fear that few of us find our debts less than zero. If it had been the other way about, perhaps we would be more ready to accept this interpretation.

Again it says: "North latitude may be regarded as positive and south as negative." I wonder if any sea captain has ever found the distance from, say, the equator to 10° south latitude lessened by regarding the latitude as negative.

I may say, however, that the writers of algebras, who make these statements, undoubtedly mean right, but I shall endeavor to show that their language is very unmathematical. But, first, one other device for getting around the assumed mystery of negative quantities is the discovery of what is called "absolute value." This is the way it is defined: "The absolute value of a quantity is the number represented by the quantity taken independently of the sign affecting it. Thus, the absolute value of — 5 is 5."

But what is the 5 that is neither plus nor minus? It is certainly not an algebraic quantity. It is actual values that mathematics deals with, and not fanciful creations that can have no existence in fact.

And all these devices are to get round a very simple mathematical concept when approached directly.

Algebra, as I have said, is generalized arithmetic; and it not only generalizes quantities and numbers, but it insists upon generalized terminology as well. In the language of arithmetic, we have different words to express opposite relations or operations, as, for example, assets and debts, north latitude and south latitude, up and down, add and subtract, etc.; but the language of algebra does not permit this; that is, not in the same problem. In stating a problem it gives us the choice between the two opposite words, but when the choice is made, then signs become fixed beyond our power to "regard" them as we please; it is no longer "may" with them, it is "must." To illustrate, in the language of arithmetic: if Mr. A says he has ten dollars, he means ten dollars more than no dollars, or nothing; hence it is a positive ten; so, too, if he says he owes ten dollars, he means he owes ten dollars more than no dollars, and it is also positive; he may not call it negative, or, if he does, he makes the mistake that blundering pupils are always making of getting their signs wrong. It is because arithmetic uses such opposite terms in expressing such opposite relations that it can have no negative quantities. On the other hand, in algebra, we must choose our term and abide by it, — at least till we get through with the problem under discussion.

If Mr. A chooses the word assets, or speaks of what he *has,* the ten dollars in his purse is a positive quantity, as in arithmetic, and for the same reason, but he must also call his debts assets, and because they are assets less than no assets, they become negative quantities. If Mr. A had chosen to have said "I owe, etc.," then his debts would have become positive quantities, and he would have been obliged to call his possessions negative debts; that is, debts less than nothing.

So, too, in the case of latitude. In algebra we must choose to speak of it as "north latitude" or "south latitude," for there is no "absolute latitude." If we choose the term "north latitude," then, north of the equator, we are in positive "north latitude," and south of it we are in negative "north latitude," that is, *less far north* than the equator. If we choose the term "south latitude" then the signs are reversed.

What is true in these cases is true in every case where negative quantities are possible. Withdrawals of money from a bank are negative only when called deposits, and deposits become negative when called withdrawals; and motion to the left is negative only when called motion to the right, because it is a movement *less than no movement* to the right; when it is called motion to the left the signs are reversed.

All this is very simple, so simple that children of the eighth grade will easily grasp it. Some may say that it is so simple that it is insignificant, but authors of text-books that devote pages to showing that ab is equal to ba, and that $a+b+c=a+c+b=a+(b+c)$, etc., will hardly be in a position to voice this criticism, especially after we have considered the bearing of this theory of negatives on the rules for multiplication and division.

Most teachers and all pupils believe that the rule, "Like signs produce plus, and unlike, minus," is the fundamental fact in multiplication and division, and that analysis need look no deeper.

What has been said in the illustrations given to show how negative quantities arise is true also of the processes of addition and subtraction. If in any problem the word addition is selected, then algebra will insist that the opposite process be called not subtraction but negative addition, or adding negatively, and *vice versa*.

This is beautifully illustrated in multiplication. Everyone is familiar with the statement that multiplication is a short process of addition; that is, it is a short process of adding a given quantity a given number of times, *beginning the count at zero*. (The reason for this last clause will appear later.) Algebra confirms this definition of multiplication and will not permit the least departure from it. For example, 5×3 means that, beginning at zero, $+5$ must be positively added three times, thus, $0+5+5+5=15$. Here it appears that the signs of 5 and 3 are both positive, and the sign of the product is positive, confirming the rule, as might have been expected.

Next take 5 multiplied by -3. This means that 5 must be added negatively three times to zero. Performing the operation thus: —

$$\begin{array}{rl} 0 & \\ \underline{5} & \text{added negatively.} \\ -5 & \\ \underline{5} & \text{added negatively.} \\ -10 & \\ \underline{5} & \text{added negatively.} \\ -15 & \end{array}$$

We have added 5 negatively three times; as required by the multiplier, — 3, hence the sum — 15.

Next take —5×3. This means that —5 must be positively (see sign of 3) added three times, as before. Performing the operation we have 0+(—5)+(—5)+(—5)=—15.

Lastly, — 5×(—3). Here, as before, the negative sign of the multiplier indicates that the — 5 must be added negatively three times. Performing the operation we get —

$$\begin{array}{r l} 0 & \\ -5 & \text{added negatively.} \\ \cline{1-1} 5 & \\ -5 & \text{added negatively.} \\ \cline{1-1} 10 & \\ -5 & \text{added negatively.} \\ \cline{1-1} 15 & \end{array}$$

In all these cases the old rule for signs is confirmed, and we see the reason for them.

Let us next examine the cases in division, remembering that division is the opposite of multiplication, and, therefore, a process of subtraction, ending with zero, where multiplication begins. Algebra will insist that all its steps, whatever the arithmetical process may be, shall be called subtraction.

First, 15÷5. Here the quotient will tell how many times 5 can be subtracted out of 15, stopping at zero, and whether it is subtracted positively or negatively.

$$\begin{array}{r l} 15 & \\ 5 & \text{positively subtracted.} \\ \cline{1-1} 10 & \\ 5 & \text{positively subtracted.} \\ \cline{1-1} 5 & \\ 5 & \text{positively subtracted.} \\ \cline{1-1} 0 & \end{array}$$

This shows that we have actually, or rather positively, subtracted 5 from 15 three times before reaching zero, and we state this by the quotient, *plus* 3.

Second, —15÷5. Here, if we positively subtract 5 from

—15 we shall get —20. This is not the road to zero, so we try subtracting negatively.

$$\begin{array}{rl} -15 & \\ 5 & \text{subtracted negatively.} \\ \cline{1-1} -10 & \\ 5 & \text{subtracted negatively.} \\ \cline{1-1} -5 & \\ 5 & \text{subtracted negatively.} \\ \cline{1-1} 0 & \end{array}$$

We get to zero by subtracting 5 negatively three times. Our quotient must show this, so we write it — 3.

Third, 15÷(—5). Here the reasoning is as in the second case, and the quotient, — 3, tells us exactly what we did; that is, to get to zero, we had to subtract —5 from 15 three times negatively, or, in other words, three times less than no times.

Lastly, — 15÷(—5). The operation is as follows: —

$$\begin{array}{rl} -15 & \\ -5 & \text{actually, } i.e.\text{, positively, subtracted.} \\ \cline{1-1} -10 & \\ -5 & \text{actually, } i.e.\text{, positively, subtracted.} \\ \cline{1-1} -5 & \\ -5 & \text{actually, } i.e.\text{, positively, subtracted.} \\ \cline{1-1} 0 & \end{array}$$

The quotient, of course, should tell the number of times the subtraction took place, and how.

I have dwelt, it may seem to some, in tedious minuteness on this matter, but I have wanted to make clear one of the reasons for the defect to which Professor Clifford called attention. The stress is laid upon rules, and slavishly following rules is poor training in analysis. The pupils no more analyze the steps they are taking than a cook following a recipe analyzes the food he is preparing.

Furthermore, the rules are so numerous that the pupils are continually forgetting or confusing them. For example, they repeat so often the rule for multiplication and division, "Like signs produce plus; unlike minus," that they often apply it to addition and subtraction, for they see as much reason for it in one case as in the other.

Another illustration in point is the wordy rules for multiplying at sight, and for factoring. It is true that some of the simplest of these processes can be easily expressed in words, such, for example, as squaring a binomial, or finding the product of the sum and difference of two quantities; but some are too complex to be easily put into rules, hence it would save time, and, I believe, would make for greater clearness, to use in all these cases what I shall call the algebraic form of rule; by this I mean the simplest form in which a problem can be expressed. For example, the algebraic rule for squaring a binomial is $(a + b)^2 = a^2 + 2\,ab + b^2$ (read, the square of the quantity $a + b$ equals a square $+ 2\,ab + b$ square); and the rule for, let us say, $(5\,a^2x - 3\,b)\ (5\,a^2x + 3\,b)$, is $(a - b)\ (a + b) = a^2 - b^2$.

So, too, the rule for factoring such quantities as $125\,x^6y^3 - 8$, or $1 - (3\,a + c)^3$ should be given $a^3 - b^3 = (a - b)\ (a^2 + ab + b^2)$.

Pupils should be taught to construct these algebraic rules, or formulæ, if one prefers so to call them. If, for instance, they have the problem, $(3\,m^2x + 5)(3\,m^2x - 7)$, they should be taught to see that this can be expressed by the form $(ax + b)\ (ax - c)$, where a stands for $3\,m^2$; which gives them $a^2x^2 + a(b - c)x - bc$ for their rule in this and all similar cases.

Reversing the order of the members, that is, $a^2x^2 + a(b - c)x - bc = (ax + b)(ax - c)$, gives, as will be seen, the rule for factoring such cases.

In the address referred to above, Professor Clifford objected to the use of formulæ as a practice hostile to analysis. On the contrary, it seems to me that the making of formulæ is excellent training in analysis, but of course the pupils must make them for themselves. If the teacher does the thinking for them, or if they memorize the formulæ from the text-book, it is another matter entirely.

So far the faults I have described are due almost wholly to text-books, but it must be admitted there are others for which teachers are to blame.

For one thing, they help too much, and, worse still, they help prematurely; that is, they help before the pupils have put into the problem effort enough of their own to earn the assistance, and to get their minds ready to appreciate it. For example, on assigning a new lesson, many teachers are accustomed to go over it with the class in advance, and explain away all the difficulties. When their classes are "working" on problems, many teachers take a considerable portion of the recitation period to "look over" the assignment of the following day, practically analyzing every problem, and leaving nothing for their pupils to do but to solve the resulting equations. It would seem as if teachers ought to see that this device robs the study of its principal educational value.

One other matter is deserving of mention. I believe it is a good thing to have pupils frequently explain their work. In doing so, however, they should not be trained to follow given routine forms. The language should be correct, the order logical, and attention should be called only to the *essential steps, and all needless detail should be omitted.*

For example take the equation: —

$$\frac{2x+7}{7} - \frac{9x-8}{11} = \frac{x-11}{2}$$

$$44x + 154 - 126x + 112 = 77x - 847.$$

$$-159x = -1113.$$

$$x = 7.$$

To explain this work the pupils should look for the first essential step, and state it somewhat thus: —

> I multiplied the equation by 154, the smallest number that would eliminate the denominators, getting $44x + 154 - 126x + 112 = 77x - 847$.
>
> I eliminated all known terms from the first member of this equation, and all terms containing x from the second member, getting $-159x = -1113$; hence $x = 7$.

Occasionally, to keep things fresh, the pupils would be asked to explain how they found the number that would eliminate all the denominators, or for the principles by which other steps were taken, all of which had been emphasized in their proper places.

Some teachers, however, who make a hobby of explanations, require their pupils to go through some such a formula as this: —

> First find the least common multiple of the denominators; this is the least common denominator; it is 154. Divide this least common denominator by the denominator of each fraction and multiply the numerator by the quotient. Dividing 154 by 7 gives 22, and multiplying $2x+7$ by 22 gives $44x+154$, — and so on.

All this detail is not only a waste of time, but it leads the pupils to erroneous impressions. Trained in this way, they lose the power to distinguish between the essential and the non-essential, and in such a case as the above, almost invariably, as I have learned by questioning, they think they have multiplied each term by a different quantity and still kept the equality.

Geometry.

Were it not for the few high schools in the State where geometry is taught in a way to make it yield something of the educational results of which it is capable, one would be justified in giving up all hope of improvement. The subject is supposed to train pupils to reason, but no other subject in the high school is taught, it seems to me, so contrary to reason.

Geometry as a high school study includes three distinct processes, each of which gives a valuable training of its own, provided the method of teaching is adapted to secure it. The first of these is defining geometrical concepts. This offers superior training in observing and analyzing and in language. But the pupils themselves must do the observing and the analyzing, and must also, in general, frame their own definitions. This is not at all difficult, for geometry is one of the few subjects taught in the school whose concepts admit of being exactly defined, and things that admit of exact definitions are the easiest things to define. At the same time, they furnish a fine discipline in logical thinking and accurate expression. If one is in doubt about this, he can easily test it by trying to define the word "mountain," or "island," or "noun," and compare results with a definition of, let us say, a triangle.

Of course, the pupils in the beginning must be taught how to define. Whether the thing to be defined is an idea or a material form, they must be trained to look, first, for the characteristic that marks its class; and second, for the peculiarity that eliminates everything of the class but itself; and lastly, to frame a definition that will tersely express both these facts.

To illustrate, take this definition of a line: *It is a geometrical concept of one dimension.* Here the phrase "geometrical concept" puts it in a class with the point, the surface and the solid, but "of one dimension only" excludes the point, that has none, the surface, that has two, and the solid, that has three.

Again: *A circle is a plane surface* (put by this in a class with the triangle, quadrilateral, ellipse, — in short, all plane surfaces) *bounded by a curved line* (excluding all bounded by straight lines) *every point of which is equally distant from one central point.* (Thus finally excluding all surfaces bounded by curved lines except itself.)

To obtain this training the student in geometry should be confronted, not with a definition ready made, to be memorized, but with a question such, for example, as: What is a quadrilateral? What is a tangent? etc., the answer to be evolved in the way I have described.

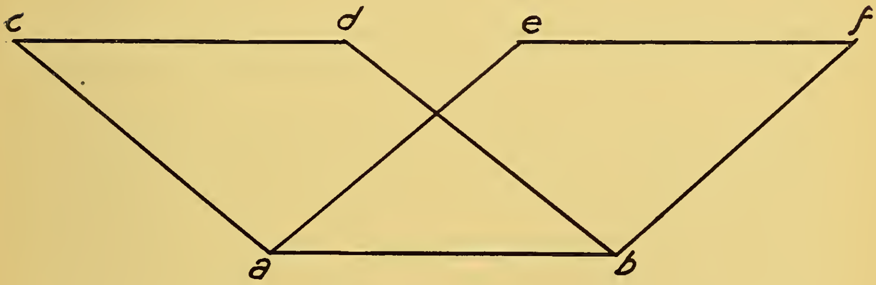
Generally it is well to give figures representing the thing to be defined, especially if it is something unusual, and perhaps some others to contrast with these; for instance, some quadrilaterals of various forms, if that is the concept to be defined, and, perhaps, for contrast, a triangle and a circle. By the study of these the pupils learn to look for the conditions that must be expressed in the definition.

Speaking from an experience of more than a dozen years as a teacher of geometry, I can say that pupils trained in the way I have described become surprisingly expert in the art of defining, and will point out the crudeness of many of the text-book definitions, which are not unfrequently very crude. For instance, some books define a line as the boundary of a surface. This tells what a line does, not what it is; but, on its own ground, it ought to include the other things a line does; that is, to divide a surface, to indicate a distance or direction, and to measure other lines, as in computing ratio.

Another book gives this for a definition: "If two surfaces cut each other, their common intersection is called a line." Must we, then, think of two intersecting planes whenever we think of a line?

Among the crudest of the definitions are some of those given for parallel lines. One of these is as follows: "Two lines are said to be parallel when they lie in the same plane, and cannot meet, however far they may be produced." Why limit parallel lines to "two?"

But to test the definition a little, let us suppose the two parallelograms below to be constructed on the same base and of the same altitude: —



By the condition, *CD* and *EF* are both parallel to *AB*, and hence are parallel to each other by the theorem in this same book and on the same page with the definition; "Two lines parallel to a third line are parallel to each other." Yet, if they are produced they can meet.

Some will try to get around this by calling *CD* and *EF* *parts* of the same line. It is true that *CD* and *EF* may be *thought of* as parts of longer lines, or, in this case, of one line, and so, too, they may be *thought of* as multiples of shorter lines; and the same is true of all values whatever, whether lines, surfaces, geometrical solids, energy, weights, or the money in one's pocket. But we do not generally think of things in this way. In the case in hand, we are considering the sides of the parallelograms *ABCD* and *ABEF*, opposite the side *AB*, and as such they are separate wholes; and the question is, are they parallel or not?

The working definition of parallel lines is: lines that have the same direction; and the truth about them is that, if produced, they will either meet and form one straight line or else they will never meet.

I have mentioned these cases because I have had pupils, trained in the way described, who quickly, and without any hint from me, have made the very criticisms on those definitions that I have mentioned, after, of course, they had worked out the correct or logical ones.

The most difficult thing for the pupils to define is an angle. They know an angle when they see it, and how to make it larger or smaller, but they are slow to discover its peculiar characteristic. Their first attempt at a definition of it will very likely be this: "An angle is the space between two lines." Now is the time when the "born teacher" is distinguished from the bungler. He will not tell the pupils that they are wrong, and give them the correct definition. He will have one of them construct an angle on the board, and by lengthening its sides he will insist that, according to their definition, and in the sense in which they have used the phrase, "the space between two lines," he has enlarged the angle. They will know better and admit that their definition is wrong; and they will try again with, probably, "the point where two lines meet." At this he will call their attention to the idea of a point, and bring them to see that if an angle is a "point" it can have no magnitude whatever.

And now a contest will be on between the pupils and the teacher, to see if they can make a definition that he cannot find a flaw in, and it may go on for two or three lessons. After a while the teacher may suggest a flank movement, as it were, by asking his pupils if they know of any lines that cannot form angles. They will cite parallel lines because (and here is where what I have called the working definition of parallel lines helps) they have the same direction. He will then suggest that this is the key to the idea of an angle, and let them try again. Probably they will get the correct definition, thus: "An angle is the difference in direction (or the difference in the directions) of two lines that meet at a point." The teacher will call attention to the redundancy of the phrase "at a point," and, with the omission of that, acknowledge their victory.

But even if the pupils fail, and the teacher, after the contest has been sufficiently prolonged, has to give them the definition, their wits have been greatly sharpened by their efforts, and this is one of the objects of education.

The second of the three processes of which I have spoken is the demonstration of certain geometrical principles. This furnishes an opportunity, such as is found in no other subject in the high school, to train pupils to analyze, to reason, to argue logically and clearly, and to appreciate exactness of language.

To illustrate this, let us take one of the principles, or theorems, as they are called: —

If one straight line meets another so as to form adjacent angles, the sum of the angles is equal to two right angles, or the angles are supplements to each other.

It seems obvious that what the pupil, for his own good, should be required to do is to study and analyze this theorem till he can construct a figure to illustrate it, and, in concise language, can set it for argument. And let me add that when he has done this, a great part of the difficulty of demonstrating it will have been overcome. Moreover, every pupil who knows what straight lines and adjacent angles and right angles are can do this; and, after two or three lessons, he will be able to do it for every other theorem, no matter how complex; and this alone, continued through plane geometry, yields a mental training that the high school boy or girl greatly needs.

But how does the text-book treat this? After every theorem there is a figure given to illustrate it, and an explanation follows. Here, at the outset, it is made unnecessary for the pupil to study, to analyze and to put his conclusions into language, and the opportunity for all that priceless training is thrown away.

In the absence of an analytical study of the theorem, the casual reading that it received makes so little impression that the pupil not unfrequently, in his attempt at demonstration, entirely loses sight of both the hypothesis and what he has started out to prove. Hence, he either breaks down, or flounders aimlessly about in a mystery of words, unless he has memorized the language of the text-book.

Comparatively few teachers, not more than two out of five, I should say, require of their pupils, even as a final touch, a clear, logical, accurate and concise demonstration. Some are satisfied if they succeed in pulling the pupils through by prompting, or by questions that put the words (the words but not the ideas) in their mouths, and leave the proof ragged. Some, after having the figure copied on the board, take their place by it, crayon in hand, and write out the statements made by the pupil, who is allowed to remain sitting or lolling at his desk; that is, write them out after correcting and arranging them. Sometimes, when the pupil hesitates, the writer gets ahead, thus suggesting what should be said next. Others have the pupils themselves write the "proof" on the board, and almost wholly omit oral demonstration. These written "demonstrations" are apt to be a jumble of what the pupil remembers of the text-book explanation, for it should be understood that in all these cases text-books are used which give or suggest complete demonstrations.

One who sees these devices in operation can scarcely resist the feeling that it would be far better to insist on memorizing the text-book verbatim, for then the pupils would be doing something exact. If mental sprawling can become a habit, there certainly is danger that the pupils in some high schools will contract it "studying geometry." One cannot but note in such cases what a wide gap there is between the training that geometry *can* give and the actual results. This would, perhaps, have to be endured if it were unavoidable; but it is not unavoidable. Indeed, it seems to me one of the easiest defects to remedy, in all high school instruction, and I gladly turn from adverse criticism to something constructive; that is, to pointing out at least one way in which the experience of many teachers, as well as my own, has shown that better results can be secured.

Of all the branches of mathematics, geometry is the easiest. The process of demonstration is especially simple. But, first of all, when the class begins demonstration work, the pupils should be taught what the process is. Any ingenious teacher can supply the details that will impress it upon the minds of the pupils, but the main points are as follows: —

When the theorem is prepared for demonstration, as previously explained, have the pupils see that they must seek for two known facts so related that they can draw from these an inference which will help them towards their aim. Make the process plain by some simple illustration, such as all acorns grow on oaks; this is an acorn, therefore this grew on an oak. Next, give them two unrelated facts, to show them that no inference can be drawn; and then give several cases of related facts for them to draw inferences from, as: silver is a metal; this comb is silver, therefore, etc.; water is composed of one-ninth hydrogen and eight-ninths oxygen; this liquid is water, therefore, etc.; *m* is greater than *n; n* is equal to *r,* then, etc.

A demonstration in geometry is mainly but a step or a succession of steps, like the above, and any one who can deduce the inferences in the last three cases ought to be able to demonstrate almost anything in geometry. Teachers will find it a help to use with a class, for illustration, some such formula as $\left.\frac{a}{b}\right\} c$, where a and b stand for the related facts and c for the conclusion. If another step is required, it may be represented thus, where d is a new fact related to c: —

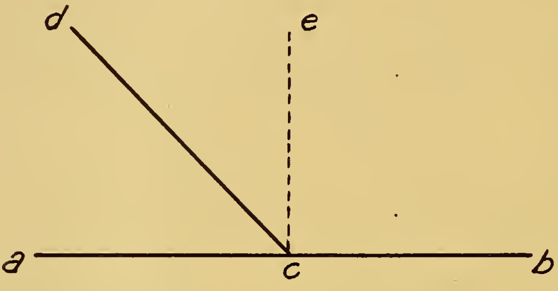
$$\left.\frac{a}{b}\right\} \left.\frac{c}{d}\right\} e.$$

Sometimes the steps may have to be shown thus: —

$$\left.\begin{array}{l}\left.\frac{a}{b}\right\} c \\ \left.\frac{d}{e}\right\} f\end{array}\right\} g.$$

When this idea has been made sufficiently clear, it should be applied to the demonstration of a proposition, say the one given above.

In constructing the figure as below, it is best not to draw the supplementary line *CE* (much harm is done by drawing such supplementary lines prematurely) till after the theorem is illustrated, which the pupils should now be taught to do as follows: let the line *DC* meet the line *AB* so as to form the adjacent angles *ACD* and *DCB;* then the sum of these angles is equal to two right angles.



As this is their first step in demonstration, it is important to give the pupils some idea of how to attack a problem; and it is an impressive lesson, on what has been their almost exclusive text-book training, to find how pitifully weak most of them are when confronted with anything that calls for original thinking.

They should here be led to see that if they wanted to prove that a thing is three feet long, for example, or weighs four pounds, or contains nine gallons, they must have measures that will measure three feet, or four pounds, or nine gallons. So, too, if they are to prove that the sum of these angles is equal to two right angles, they must construct a measure that will measure two right angles. A pupil will construct such a measure somewhere on the board, and the question will be raised as to where it must be placed to be of service; then the line *CE,* perpendicular to *AB,* will be drawn. Next, by skillful but not too many questions, a proof such as the following may be developed: —

(*a*) The sum of the angles *ACD* and *DEB* is equal to the sum of angles *ACE* and *ECB,* because these sums coincide (axiom).

(b) The angles *ACE* and *ECB* are right angles.

(*c*) Therefore, the sum of the angles *ACB* and *DCB* is equal to two right angles (axiom).

The preliminary explanations will become less and less needed as the class advances, and, after five or six propositions have been proven, will be needed only occasionally, for the pupils will gain power to work out the demonstration themselves.

The theorem I have used to illustrate the process is one formerly first given in all text-books, and is admirably suited to begin with, because it so well shows the logical steps; but of late it has been supplanted in most new books by the following: *All straight angles are equal.* Now, that there is any such angle as a straight angle may be questioned; and a good argument may be made to the effect that there is none; but even granting that there is such a geometrical concept, it would seem as if the climax of absurdity has been reached in the above. Reduced to its final analysis, it is an attempt to prove that all straight lines are straight. What a voluminous volume a text-book in geometry would become if this sort of work were approved. How eminently practical it would be for pupils to be kept proving that points are points, that middle points are in the middle, and that equal magnitudes have the same size!

It seems to me that the "straight angle" introduces a needless perplexity into geometry, at the point where it will do the most harm, and that it illustrates a tendency at present toward the introduction into text-books of geometry of artificial notions and very crude definitions, samples of which have already been given. For other illustration, the "internal tangent" has lately appeared; and one book has the following definition: —

> Similar polygons are polygons that have their homologous angles equal and their homologous sides in proportion.

As we never really know a thing till we know its contrasts, it would have been well for this book to have given some illustrations of polygons whose *homologous* angles are *not equal,* and whose *homologous* sides are *not* in proportion.

I have said that geometry is the easiest branch of mathematics, and, speaking from experience, I can add that the easiest way to teach it, to say nothing of its being the most fruitful and inspiring, is the "rational way," as outlined above. There are, however, some details of treatment which the one who undertakes it will do well to keep in mind, and although all teachers may not need them, some may profit by a few suggestions.

First. — The teacher *must not talk too much.* By skillful questioning he must keep the pupils' thoughts centered on the main aim, and the facts, previously learned, that are needed to accomplish it; but if he finds himself talking *half* as much as those now do who use the customary text-books, he may be sure he is not on the right course.

Second. — After the work of demonstration is well started, say by the time the class has covered five or six propositions, teachers should make it a practice *not to assist directly at the point where the pupils find a difficulty.* It may be well to do this once in a while, but not very often. In nine cases out of ten it will be found that the difficulty is partly due to the fact that something preceding, — some definition, axiom or proposition, — when it was learned, had not been brought quite up to the working pitch in the pupils' minds, and when the teacher sees what it is, he should have it hunted up and reviewed. The chances are ten to one that, when the pupils come back to attack their difficulty, they will overcome it. The occasions that will most frequently call for direct assistance will concern the construction of supplementary lines and a few operations, as projection and dividing a line in extreme and mean ratio.

This practice of constantly turning back to freshen up something needed in the demonstration of a new principle will make the spending of any other time on reviews almost needless, and is one of the ways in which the definitions and theorems become fixed in the pupils' memories, without any special effort to have them memorized.

Third. — Pupils should not be allowed to *write out demonstrations or definitions, or keep any notes of them.*

I can hear teachers say "Oh" at this, for the writing of outlines and abstracts of everything has become such a fad that we have lost sight of the fact that this practice can be out of place, and therefore an injury. It seems to me that there is a well-defined law that governs the use of the notebook. When the matter that is being studied comprises details with which it is not desirable to burden the memory, as may be the case in advanced work in almost any subject, the notebook is useful; but when the instruction deals with essential principles that should be fixed so clearly in the mind as to be ready for use on call, like the ordinary combinations in numbers or the essentials of language, the notebook would be an evil. In geometry all the principles and analytical steps belong to this last class. If the pupil has these in mind as he ought, he will not need a notebook; if he has to look them up every time he has occasion to use them, his progress in geometry will be slow and his training profitless.

Fourth. — The work of defining and demonstrating should be made an exercise in *oral English.* While at first a demonstration may be blocked out roughly, it should not be left till the pupils can argue it without help, logically and clearly, neither misplacing a step, nor putting in a needless word, nor leaving out a necessary one. There is no subject in the high school that furnishes a training superior to this.

Fifth. — It will be found best to take the class straight through what is known as the syllabus, without touching one of the so-called originals that are found in text-books. It will be well, however, from time to time to call the attention of the pupils to practical applications of what they are doing; for example, in dealing with similar triangles, to show how the principles they are learning aid in surveying, measuring the distances of the heavenly bodies, etc. If the so-called originals are discussed at all, it should be in the way of a general review. By the course here recommended at least a month's time will be saved.

An objection urged against this method of treating geometry is that it is "too slow." If this were true, my answer would be that one book of plane geometry treated in this way is worth more to the pupils than all of them as now taught. If, however, the teacher finds at the end of the year that he is not fully up with the work in other schools, where a text-book is used, he may be sure that in some way he has mismanaged the instruction.

I know of a case where a teacher accomplished a tenth more work by this method than was done elsewhere, and I was assured by the other teachers in the school that the influence of the training was perceptible in all the classes in which the geometry pupils recited. I am confident that the criticism of Professor Clifford would not have held in their case.

The third of the processes in geometry is the construction of certain figures by the principles previously demonstrated.

I have only to say on this point that this construction work ought to be done, it seems to me, carefully, and as exactly as the instruments available will permit. In this lies its special training. Some teachers are very careless about this, allowing the pupils to construct the figures by "guess," as it were. I have a feeling that this is poor geometry.

I would have these figures constructed on paper as well as on the board, and would have them tested for exactness. Moreover, the frequent demonstration of the propositions on which the constructions are based will be found an effective review.

This brings me to the last point that I wish to discuss. We teach algebra the first year and geometry the second year, mainly as abstract branches of mathematics, but we make hardly any attempt to show the pupils how these subjects that they have labored so hard over serve to answer great questions which man is constantly asking in connection with the work of the world. We truncate them, as it were, at the point where they are ready to be given a practical, concrete application. There is very little done to correlate algebra and geometry with each other, and nothing done to correlate them both with science or with industrial problems.

I have hinted that the colleges are to be credited with the fact that algebra and geometry are studied intensively. I believe, however, that they are to blame for the fact that these branches are not carried beyond their abstract treatment, and that in the third and fourth years they are reviewed in the same way. Thirty years ago and more it was not an unusual thing to find in high schools and academies courses in surveying to supplement algebra and geometry, but even this small offering to utility has been banished.

The question will be asked: What time is there to practically apply these branches to science and industry? It seems to me that considerable time may be found, and that, too, in the second year.

Besides the traditional syllabus, which embraces the material for demonstrating every demonstrable geometrical concept, the class has to be put through a lot of so-called originals, like the propositions of the syllabus in all respects, except that most of them are side matters of no particular value. What are they for? The apparent answer to this question is that they are there to supply training in reasoning that is not obtained from the syllabus by following the text-book, — a suggestive confession. But if the syllabus is taught so as to furnish the training, then evidently these "originals" can be omitted, and this will leave a fourth of the year at least for more useful work.

It has been my intention to discuss in this report the available material for a more useful employment of the time of the pupils than on the so-called originals. I find that there is a large quantity of this material connected with the industries and with such arts as surveying, engineering and navigation. In addition to this, the rapid increase in the first-year courses in elementary physics is opening up a large field for the correlation of mathematics and sciences, if teachers can be found capable of utilizing it. The more I have examined this material, however, the stronger I have become impressed with the feeling that it needs a more careful study, with a view to selection and arrangement, than I have been able to give it, and that the help of others must be invoked. I have, therefore, concluded to pass over this discussion for the present.

To sum up: we need to simplify the nomenclature and treatment of mathematics in the interest of truth; to use methods of instruction that will, to a far greater degree, provide the educational results that the subject is adapted to produce; and to correlate the branches of the subject, both with each other and with fields of human endeavor, where they play an important part.

Respectfully submitted,

J. W. MACDONALD.

Dec. 31, 1909.

Appendix C.

REPORT OF JULIUS E. WARREN,

AGENT OF THE BOARD.

The Possibilities of the Country, The Opportunity of the Rural School, The State's Opportunity.

REPORT.

To the State Board of Education.

During the year ending Dec. 31, 1909, I have conducted a propaganda for a kind of education adapted to the needs of modern country life. In this work I have been assisted by Mr. Frank Fuller Murdock, principal of the North Adams State Normal School, and Mr. William E. Riley, superintendent of schools, Hinsdale. I have urged the bringing of the school into closer touch with every phase of rural life, — social, home, civic and industrial. To this end I have tried to show that elementary but thoroughly scientific agriculture may be taught and practiced in the school and home gardens; that various forms of co-operative effort in improving school property and surroundings lead to good citizenship; that sewing, cooking and other activities of the home may be dignified and made interesting by attention in the school; and that systematic efforts to develop the social nature of the children, and bring about right relations among them, have a legitimate place in the school. No teachers' institutes have been held for this purpose. The appeal has been directly to the people. No educational meetings in my experience have so strongly influenced popular sentiment, or produced such immediate and satisfactory results, as these appeals to public intelligence. In these meetings criticism of courses and methods has been avoided, as likely to create contention and antagonism. The aim has been to demonstrate: —

First. — That the unfavorable conditions existing in many sections are not inherent in country communities, but arise from a failure to make the most of the opportunities at hand.

Second. — That the elementary and secondary schools may be made potent factors in the upbuilding of country life.

Third. — That it is the duty of the State to exercise a careful scrutiny over the expenditure of all State money in the towns, and further to encourage and assist the poorer towns in the maintenance of an education which is vital to their existence.

The Possibilities of the Country.

The country is really the ideal place in which to live and bring up children. The school, transformed into a social, intellectual, and industrial center; the grange; the public library; the telephone; free rural mail delivery; and in many places the trolley, are doing away with isolation and loneliness, and making country life richer and more attractive.

The application of science and modern business methods to agriculture is giving larger crops at a less cost per acre, but the demand for farm products still far outstrips the supply. This is due to the phenomenal growth of cities, arising from the discovery that production is more economical in the large establishments, which are made possible by improved methods of transportation, the almost unlimited development of steam, water and electric power, and the invention of machinery adapted to nearly every process of manufacture, with the consequent specialization and simplification of each operation to an extent which makes practicable the employment of the most recent importations of the cheapest labor of Europe. The result is that the urban population is outgrowing its food supply. The high cost of living is threatening the prosperity of the cities and causing discontent and unrest among the people. Raising wages in shops and factories and on railroads offers only a temporary relief to the employee, for the higher wages again serve to increase the cost of many of the necessities of life.

The one certain solution of the difficulty will be to convince young people that opportunity lies out on the farm and not in the city, where a livelihood is always precarious. Massachusetts is not usually regarded as an agricultural State, but enough fruit, vegetables, eggs, poultry and dairy products for several times the present population might profitably be produced, and much of the beef, pork and mutton used might be raised at home. Scientific agriculture will give abundant and cheap food. Cheap food is essential to the welfare of all of the industries of the city. Hence, self-interest should move the cities to extend their sympathy and financial support for the promotion of the kind of education in rural communities which will make country life more attractive and productive. Agricultural education

Cooking, sewing, woodworking and gardening are taught in this building, New Ashford.

Vegetables and flowers from the pupils' home gardens, New Ashford.

is a pressing need. It is the most important phase of industrial education. The State, representing the community as a whole, should use its power to advance agricultural education and to encourage the skillful tilling of the soil. Everything should be done to keep the children on the farm, and train them for happy, contented and useful lives. A more general and effective cultivation of the soil means a higher standard of living, with a fuller social, intellectual and civic development of the country and a broader and sounder prosperity in the city.

In the hill towns of Massachusetts a few men are now raising from 250 to 450 bushels of potatoes per acre, at a cost of less than 30 cents per bushel. The average yield in the United States is about 95 bushels per acre. One man had 27 acres of potatoes in a single field, and another raised 10,000 bushels the past season and was marketing them by the first of August. These men used the sulky plough, the disk harrow, the planter, the horse hoe, the four-row sprayer for applying the Bordeaux mixture and insect poison, and the potato digger. The only hand work was picking up the potatoes. The use of machinery in scientific potato raising is a good illustration of the revolution which has taken place in the methods of farming.

Apple growing in Massachusetts presents greater and surer opportunities for wealth than the famous orange groves of Florida and California. A Colrain man recently sold $3,000 worth of apples from a farm which cost him $2,200. A number of others within my personal observation have sold from 250 to 1,100 barrels of Baldwins at prices ranging from $2.50 to $3.30 a barrel. One orchard owner sold McIntosh Reds at $8 per barrel. Three years ago a young man bought a farm containing a neglected orchard; he cut away the dead wood, cultivated the ground between the trees, and fertilized and sprayed. The foliage soon became more luxuriant and the fruit larger and richer in color. Because of its superiority it was marketed at nearly double the ordinary price. The young man set out 300 trees in 1908, and as many more in 1909. Within ten years this man will have an income of $5,000 a year. Without taking into consideration the free, independent, healthy, vigorous out-door life he leads, or the service he renders mankind, compare his prospects, from a purely business standpoint, with those of the average professional man, or the manufacturer or merchant employing no greater capital.

People are only just beginning to realize the possibilities of apple culture. Is it not time to change Horace Greeley's advice, "Young man, go west," into, "Young man, start an apple orchard in Massachusetts?" Almost innumerable instances of marked success in the raising of small fruits, greenhouse work, market gardening, dairying, poultry or sheep keeping, and other lines of agriculture might be given; but enough has already been presented to show that agriculture offers an attractive field for enterprise.

The Opportunity of the Rural School.

It must be confessed that in the past the schools, if not actually belittling rural life, have failed to train pupils to see the opportunities at hand, and prepare them for happy and successful careers on the farm; nor has the work of the school been sufficiently interesting to hold the majority of the children in school beyond the age of compulsory attendance. The young people have left school able to read, write and cipher, but with no interest in agriculture, nor the slightest scientific training for it. As a consequence, many a country boy is performing unskilled labor in the city. If married, he is struggling along, trying to educate his children, pay the rent and keep up appearances on $2.50 a day, or less; he will be fortunate if at forty years of age he is even with the world; he has slight prospect of being able to secure a home or to make provision for old age. If there had been something in the rural school to reveal to him the possibilities of agriculture, to interest him in the farm which he deserted, and to begin even in a small way his training for scientific agriculture, his career would have been far different. He would have been assured of a comfortable and attractive home, of a competence, and of a higher standard of living than is possible for him in the city. His calling would have been highly favorable for all-round development, as modern agriculture stimulates intellectual activity, presents favorable surroundings for physical development and gives the moral satisfaction of rendering indispensable service to mankind. He would be a

This eleven-year-old girl measured and drafted a pattern for a blouse in five minutes, Hinsdale.

Laying the tile drain pipe, Briggsville.

man of influence in his community, and happy because successful in a vocation which he enjoys.

The industrial part of the problem is to diffuse and strengthen the spirit and knowledge which are making some men and women eminently successful in the pursuit of agriculture. The social questions involved reach into almost every phase of human life. These are the problems of rural education. If it is true that the country church is losing its influence, and the family its hold upon the children, the responsibility which rests upon the school is still more serious. Some attempts are being made to meet these new demands upon the school. At Hinsdale, a town of 1,452 inhabitants, a school population of 255, a valuation of $584,668, and a school tax of $7.02 a thousand (school taxes in the State vary from $0.21 to $9.75 per thousand), agriculture, the use and care of tools, cooking and sewing have been taught to the children in the grades in the four-room building at the Center. A special study of the potato, and the soil and fertilizers adapted to its growth, was made in the school garden. The formalin solution was used to destroy scab, and the vines were sprayed with the Bordeaux mixture, to prevent blight and assure the continued growth which means a large yield. Text-books and bulletins from the national and State agricultural departments were at hand and eagerly read by the pupils. The boys learned and used about all the knowledge existing on the subject of potato raising. Every boy knew how to prepare and use the formalin solution and the Bordeaux mixture, and was a proud and enthusiastic exemplar and teacher of scientific potato culture in the home and the community. Radishes were put up in bunches, lettuce heads were boxed, and other vegetables were prepared for market in the most approved manner. The vegetables were sold, bills rendered, collected and receipted. Letters relating to fertilizers and other matters connected with the school garden were written and sent through the mails. These boys, in the pursuit of agriculture, did the kind of work done by the students in the best high schools of commerce. The girls had very practical courses in cooking and sewing. The outfit for cooking was similar to the one given below: —

Outfit for cooking used in one-room building in town of Peru:

1 blue-flame 3-burner kerosene stove; 2 dish pans; 2 salt and 2 pepper castors; 10 rolling pins; 10 teacups and saucers; 10 plates; 3 agate sauce pans; 3 frying pans; 10 wooden spoons; 1 dozen each of knives, forks and spoons; 10 vegetable knives; 5 strainers; 10 beaters; 10 measuring cups; 10 tin plates; 13 bowls; 10 custard cups; 6 bread tins; 1 biscuit tin; 1 potato masher; 1 flour sifter. Total cost, $23.94.

The course has consisted of the cooking of vegetables raised in the school garden, soups, salads, bread, biscuits, cake, simple desserts, preserves, pickles, and such foods as would be likely to be used in the community. The following is the menu of the dinner prepared and served by the girls to the local school committee, Mr. Murdock, Mr. Riley and myself, on Nov. 4, 1909: —

MENU.

Soup.

Tomato Bisque. Croutons.

Relishes.

Celery. Pickles.

Roast.

Sirloin of Beef.

Vegetables.

Riced Potato. Pickled Beets.

Salad.

Waldorf. Wafers.

Dessert.

Custard with Caramel Sauce.
Grapes.
Milk.

The sewing has consisted of exercises in the various kinds of stitches, the use and care of the sewing machine, making of button holes, sewing on of buttons, mending, darning, hemming of napkins and table linen, the cutting, fitting and making of underclothing, aprons, dresses and blouses for the smaller children. At my request, two seventh-grade girls measured a first-grade boy for a blouse, and drafted a pattern in my presence. Four blouses had already been completed.

School vegetable and flower garden. One-room building, Alford.

A part of the same garden later.

School gardens, domestic science and efforts to train children to a sense of social responsibility and mutual helpfulness have also been carried on in one and two room buildings in Briggsville, Alford, Peru, New Ashford, Williamstown and Lanesborough, and, in a modified form, in other towns. Walks have been constructed; lawns graded, reseeded and made attractive with flowers and shrubs; glass set; buildings repaired, and in two cases painted; rooms sheathed for workshops; and the skill and ingenuity of the children utilized in constructing window boxes and other articles for school use. No one who has observed the interest and thoughtfulness shown in this work, the care in measuring and planning for economy in the use of lumber and other material, and the development of originality and executive and creative power, can doubt its educational value. Successful potato culture in the school gardens at Hinsdale, Peru and Briggsville proves that it is possible to begin the study of agriculture in the elementary schools. This study may easily be extended to other crops, to a more thorough treatment of soils and fertilizers, to animal husbandry, to fruit growing and to forestry. The study must be begun early if anything is to be done for the boy whose school life ends with the grammar grades. It is also very important for those who might be expected later to study agriculture at schools of the type of the Petersham, Montague and Smith Agricultural schools, or in the Massachusetts Agricultural College; for experience shows that it is necessary to interest the children in the subject early to overcome the tendency of book study to make every form of manual labor distasteful. Academic courses have magnified out of all due proportion the attractiveness and desirability of the professions. This is the correct explanation of the fact that only 14 per cent. of the students in the agricultural schools of the United States are taking courses in agriculture. Among the results clearly in evidence at this time of the attempts to emphasize in school some of the fundamentals of life are: —

Better attendance.

More rapid progress in regular studies.

Greater public interest in the schools.

Added respect for woman's work, agriculture and manual labor.

Superintendents report that pupils have remained in school who would otherwise have left, that some children over fourteen years of age have returned to school for the sake of the new work, and that the regularity of attendance has improved in every school where the new subjects have been introduced. In some of the schools, pupils have not been allowed to do any hand work until their lessons have been learned. This requirement has stimulated so much earnestness in study in and out of school that individual pupils have *earned* one day a week for the manual occupations, and all have done better work. Mr. Warren H. Baxter, secretary of the New Ashford school committee, writes: "More interest is shown and more work is accomplished." Teachers and school officials agree that no old line of school work has suffered from the introduction of the new. Mothers have been won to the support of the instruction in cooking and sewing by the new interest, pleasure and effectiveness which their daughters show in the performance of the simple, necessary, useful duties of the home. One girl makes all the bread, another prepares the dinners, a third took the entire charge of the home during a week's absence of the mother. The boys have a different attitude toward agriculture. Many of them have home gardens, which they cultivate for pleasure and profit. They are anxious to do everything in the best way. An Alford father says, "I am glad there is something in the school that makes my boy willing to hoe potatoes." One of our best superintendents of schools declares that the introduction of agriculture, carpentry, cooking and sewing has aroused the interest and won the respect and confidence of his community. These courses are popular because they reach the people.

The following books have been found helpful to teachers and pupils: —

"Scientific Sewing and Garment Cutting," Silver, Burdett & Co.

"Agriculture," Brooks, The Home Correspondence School, Springfield.

"Elementary Agriculture," Hatch & Haselwood, Row, Peterson & Co., Chicago.

"Agriculture for Beginners," Burkett, Stevens & Hill, Ginn & Co.

"Elements of Agriculture," Warren, The Macmillan Company.

Flexible flyer, made by fourteen-year-old boy, Hinsdale.

Painting the flag pole, Briggsville.

The chief difficulty in extending and developing practical teaching in rural schools is finding teachers to carry it on successfully. The poorer towns are not able to pay salaries which will secure the teachers who are being trained for this kind of social service in our State normal schools. Larger salaries in the small towns would make the present supply of teachers available for rural communities, and increase the supply by attracting a larger number of students to the normal schools. Better compensation would also lead other teachers with the right spirit and ability to seek employment in the country. It is only fair to say that some of the most capable teachers engaged in this work have had no special training for it. They have believed in it, studied and labored for its success. The State at one time paid "not more than two dollars a week," in addition to the salary paid by the town, to "teachers of exceptional ability" employed in small towns. (Chapter 408, Acts of 1896.) Few educational laws have done more to raise the standard of teaching, or have been more productive of good to rural communities. Every dollar expended under the law meant increased efficiency. A law providing for State aid of this nature for the teaching of agriculture, manual arts and domestic science, approved by the Board, would cause the work to move forward rapidly. With schools of this type easily accessible to every farm, fewer boys and girls would leave the country.

Education for Efficiency in Rural Secondary Schools.

Under present law and standards the college dominates the high school. Courses of study and methods of instruction conform to entrance requirements. This does not produce efficiency. It is only fair that the range of studies in these schools should be broadened and adapted to meet the needs of the majority of the students. The chief courses should relate to agriculture and domestic arts, and should directly serve to build up the industrial, social and civic interests of the country. The three and four teacher high schools can prepare the few who wish for the higher institutions of learning without interfering with the success of the industrial courses. The curriculum should be broadened, not restricted. New avenues of opportunity should be opened and none closed. Every student should be given an equal chance to fit himself for the work of the world, whether in an industrial or professional capacity.

The State's Opportunity.

The state is now aiding the small towns, through the distribution of the income of the State school fund, in the support of high schools, in providing supervision for unions of towns and in training of teachers in its ten normal schools.

State School Fund.

On Jan. 25, 1909, the income of the State school fund, amounting to $229,439.73, was divided among 219 towns. The smallest sum given to any town was $75, and the largest $1,458.41. The method of the distribution of the income of the State school fund is meant to encourage the towns to appropriate money liberally for the support of their schools. The more a town does for its schools the greater its share of the school fund. The following table illustrates the extent to which the expenditure of local appropriations affects the town's share of the income of the school fund: —

Amount received Jan. 25, 1909, by Towns whose School Tax was One Sixth, One Fifth, One Fourth and One Third of the Whole Amount raised by Taxation.

Town Valuation.	Minimum.	One Sixth Class.	One Fifth Class.	One Fourth Class.	One Third Class.
$500,000 or less, . . .	$500	$979 20	$1,075 04	$1,218 80	$1,458 41
$500,000 to $1,000,000, . .	300	779 20	875 04	1,018 80	1,258 41
$1,000,000 to $2,000,000, .	150	629 20	720 04	868 80	1,108 41
$2,000,000 to $2,500,000 . .	75	554 20	655 04	793 80	1,033 41

All laws relating to education must be obeyed to entitle a town to any part of the income, and $75 is added if the tax rate is $18 or more. The expenditure of $20 more of local school money would have placed one town in the class expending one sixth of its total tax for schools, and given that town $479.20

more of State money with which to pay larger salaries for better teaching in its three schools and provide for the introduction of practical subjects which would have interested the boys and girls in country life, and done much to stay the loss of population and industrial vigor which is threatening the very existence of the town. Many towns are failing to put their school expenditures on a sufficiently liberal basis to entitle them to a large share of the income of the State school fund, and some have been actually accumulating in their treasuries school funds which should have been spent for the children. A number of towns report unexpended balances of State school funds of from $1,000 to $2,500. It is the duty of the State to see that all the income is used for the benefit of the children.

State Aid for High Schools.

Forty-four high schools in towns containing less than 500 families received $500 each, or a total of $22,000, and 76 high schools were indirectly paid $38,808.43 through the reimbursement of tuition. One town appropriating $1,000 for its high school received $3,900 from the State. In justice to the towns which send pupils to this high school, but have no voice in its management, and in the interest of sound education, the Board should exercise a larger influence in the direction of this and other high schools. The power of approval for the $500 grant, the reimbursement of tuition and the certificate privilege for admission to State normal schools may be made the instrument for greatly increasing the usefulness of the high schools.

Supervision.

The State pays $1,250, or five-sixths of the minimum salary in the superintendency unions, and requires the unions to choose the superintendents from a list certified by the Board of Education. The character of the supervision of schools may be improved by frequent conferences and institutes of superintendents, by a close inspection of the work, by the payment of sufficiently large salaries to draw strong men into the field, and by gradually raising the standard of certification. The superintendents owe a duty to the State as well as to the towns. The

State has a right to expect zeal in the promotion of agricultural, industrial and household education, and efficiency in every direction.

CONCLUSION.

The building up of an enriched and happy rural life is of vital importance to the whole State. If the schools are to reach their highest usefulness, and be powerful factors in the improvement of country conditions, the State, as a matter of justice and sound policy, should make it possible for the small towns (1) to pay salaries which will attract the graduates of those normal schools which are training teachers for rural service; (2) to introduce and maintain in their secondary schools practical courses in agriculture, mechanic arts and domestic science; and (3) to increase the salaries of especially effective superintendents to a figure which will enable the unions of small towns to retain the services of able, strong and efficient men a reasonable length of time.

Respectfully submitted,

JULIUS E. WARREN.

DEC. 31, 1909.

Appendix D.

REPORT OF FREDERIC LYNDEN BURNHAM,

AGENT OF THE BOARD

FOR THE

PROMOTION OF MANUAL ARTS.

REPORT.

To the State Board of Education, Frederick P. Fish, *Chairman.*

I submit herewith my third report, which is the thirty-first annual report of the Agent for the Promotion of Manual Arts.

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Department Statistics.

Number of cities and towns visited,	96
Number of all-day visits to Normal Schools,	28
Number of High, Grammar and Primary Schools visited,	471
Special visits to Industrial Schools,	5

for the inspection of work already done, criticism of actual teaching, and giving model lessons.

Number of addresses at Normal Schools,	20
Number of addresses at institutes,	38
Number of addresses to teachers,	26

the 84 addresses suited to the specific problems of the individual cities, towns and schools where they were given.

Again, as in previous years, inevitably such work demands thousands of miles of day and night travel throughout the

State, endlessly repeated interruption of regular habits of daily mental and physical life, a mass of routine correspondence, and numberless individual calls for expert criticism and advice, either in carefully detailed letters or in personal interviews.

Naturally, also, it leads to calls for public and private addresses, conferences and discussions, on educational problems, both within the State itself and in other States.

Thirty-three Saturdays have been given to the Massachusetts Normal Art School, for which (January to June) courses of lectures on Supervision, 20 three-hour sessions, and Teaching, 18 two-hour sessions, have been prepared and delivered to the Teachers' Class.

Also, October to January, 13 three-hour sessions, laboratory study of course in Supervision, printed herewith, and of course in Teaching, both with the Teachers' Class.

The specific subjects and their methods of teaching have been given in detail as each grade in the Public Schools has been studied.

Statistics are on file with the Agent in reference to the following particulars: —

Salaries of Supervisors of Manual Arts, Supervisor of Manual Training, Teachers of Manual Arts and Manual Training in High Schools, Teachers of Manual Arts and Manual Training in Normal Schools.

Distribution of the time in Manual Arts and Manual Training in separate cities and towns and unions.

Approximate cost per capita of materials and tools used in Manual Arts and Manual Training.

It has proved impractical to arrange for the Supervision of the Manual Arts in towns hitherto unprovided, so the number remains: —

1. Supervisors and Teachers of the Manual Arts, ...	173
2. Assistant Supervisors of Manual Arts, ...	11
(Not included in Class 4.)	
3. Supervisors of Manual Training, ...	62
(Not included in Class 1.)	

4. Special Teachers of Manual Arts in High Schools,	93
5. Number of cities and towns in the State,	355
6. Number of cities and towns with Supervision of Manual Arts,	260
7. Number of High Schools in which Manual Arts are taught,	266

Seven institutes and conferences for Supervisors of Manual Arts have been held at Boston, Fairhaven, Georgetown, Hyannis, Norwood, Pittsfield and Worcester. At Worcester and Fairhaven, Prof. Walter Sargent of Chicago University lectured.

The Boston Institute was held at the Massachusetts Normal Art School, for Superintendents of Schools, Supervisors and Teachers of Manual Arts and Manual Training, and the Massachusetts Normal Art School Alumni Association. A copy of the program follows: —

The State Board of Education and the Massachusetts Normal Art School Alumni Association invite Superintendents of Schools, Supervisors, Teachers of Drawing and of Manual Training to an Institute at the State Normal Art School, Newbury and Exeter streets, in Boston, Friday, January 22, 1909.

MORNING.

ARTHUR T. FAIRBANKS, . . . Director, Museum of Fine Arts
"Museums and Technical Instruction in Art."
R. CLIPSTON STURGIS, ... Architect
"The Construction of School Buildings in Relation to Educational Problems."
CHARLES T. WOODBURY, . . Principal, Fitchburg High School
"Industrial Education in the Fitchburg High School."

AFTERNOON.

FRED H. DANIELS, . . . Director of Manual Arts, Newton, Mass.
"The Charm of the Arts."
GEORGE TURNER PHELPS, ... Creative Critic
"Visual Unification in Drawing."
HENRY TURNER BAILEY, ... Editor School Arts Book
"The Outlook for Art Education in the Public Schools."
GEORGE H. MARTIN, ... Secretary of the Board
FREDERIC LYNDEN BURNHAM,
Agent of the Board for the Promotion of Manual Arts
CHARLES W. FURLONG,
President of Massachusetts Normal Art School Alumni Association

Three general conferences were held at the rooms of the Board of Education with the Teachers of Manual Arts in the State Normal Schools. At one of these conferences the Teachers of Manual Training in the State Normal Schools were also present.

Definition and Aims of Manual Arts.

A discussion of the aims and the definition of Manual Arts (in this order) will be found in my Departmental Report of the Seventy-second Report of the Massachusetts Board of Education, January, 1909, pp. 270–296.

Field Notes.

Including a Laboratory Course in Supervision for the Massachusetts Normal Art School, pp. 230–235.

In September, 1909, the Board, in the person of its Chairman, authorized me to print at the Board's expense and distribute through the State from time to time, at my discretion, by way of Field Notes, such suggestions, directions, encouragement and creative criticism as immediate practical needs of actual teaching problems required.

The following announcement of courses is here printed in full because it presents in compact form the general agreement of the demands for help and guidance, increasingly during the last three years and at present insistently made upon its Agent by the supervising and teaching forces of his Department throughout the entire State.

Industrial Education Courses in Manual Arts or Visual Design for Handicraft and Drafting, arranged and correlated by Frederic Lynden Burnham, Massachusetts Normal Art School, 1895, Agent for the Promotion of Manual Arts under the Massachusetts Board of Education.

The following courses in each detail are based upon actual practical experience in supervising and in teaching both teachers and children from the Kindergarten through the Normal Schools during service as Supervisor of Drawing, North Adams, Mass., 1896–99; Supervisor of

Drawing, New Haven, Conn., 1899–1904; Supervisor of Manual Arts, Providence, R. I., 1904–07; Agent of the Massachusetts Board of Education for the Promotion of Manual Arts, 1907–10; and Teacher of teachers at the Massachusetts State Normal School at Hyannis, Summer Session, 1897–1906.

As will be seen below,

V. The High School Courses are already published in the Seventy-second Report of the Massachusetts Board of Education, January, 1909, p. 293.

I. Supervision is printed herewith.

II. Teaching is to follow at once, and the remaining numbers of the series are to be issued as rapidly as time permits.

IV. A General Outline for Primary Work is given at p. 239.

VI. A General Outline for Normal Work is given at p. 247.

LIST OF COURSES.

I. A Laboratory Course in Supervision for Supervisors and Teachers and the Teachers' Class of the Massachusetts Normal Art School, given by the State Agent for the Promotion of Manual Arts at the Massachusetts Normal Art School, 1907–08, 1908–09, 1909–10.

II. A Laboratory Course in Teaching for the Teachers' Class of the Massachusetts Normal Art School, and for specialized study in the Normal Schools, given by the State Agent for the Promotion of Manual Arts at the Massachusetts Normal Art School, 1907–08, 1908–09, and under his supervision, 1909–10, in connection with teaching in the Practice Schools.

III. Kindergarten work for first and second years.

IV. Primary work. (For general outline, see pp. 239-242.)

Nine grades in preparation for general and specialized secondary work in —

1. High Schools.
2. Manual Training High Schools.
3. Mechanic Arts High Schools.
4. Agricultural High Schools.
5. Vocation Schools.
6. Trade Schools.
7. Industrial Schools.
8. Manual Arts Schools.

Course 1. Delineation (Drawing) and Painting, Freehand and Instrumental.

2. Drafting (Mechanic), Freehand and Instrumental.

Course 3. Carving.
- 4. Modeling.
- 5. Embroidery.
- 6. Weaving.
- 7. Object making.

V. Secondary work.

High School, one, two and four year courses.

A. Required.
- 1. First year, all pupils.
- 2. Fourth year, for Normal Schools.

B. Elective, second, third and fourth years.
- 3. Freehand.
- 4. Mechanic.

Note. — These courses are already in print in a paper, "Supervision and the Teaching of the Manual Arts in the High School," included in the Seventy-second Report of the Massachusetts Board of Education 1909, p. 269.

VI. Normal School work.

Two, three and four year courses.

Specialized teachers' course (see Course 2).

Course I. — Supervision, a Laboratory Course.

A. Ground Covered.

I. *General Aims.* — By division of the field into districts, each under a Supervisor, the State is able, through an Agent, to co-ordinate work with regard to its special aims in developing the minds of children; also to differentiate the means for solving the specific problems in the varying conditions of each locality.

II. *Aims in Supervision of Manual Arts.* — To prove in practice that, based on visual design, Manual Arts, and among the Manual Arts especially Delineation (Drawing), are of supreme importance because they develop in the student those faculties, otherwise left dormant, which immediately fit him to act and to think independently and creatively in practical affairs of actual life.

III. Personal requisites of Supervisors.

IV. Relations of Supervisors to —
1. State Board of Education.
2. Commissioner of Education.
3. Deputy Commissioners.
4. Agents of the State Board of Education.
5. Massachusetts Normal Art School.

6. Public School System in the State.
    Graded and Ungraded, City, Town, Rural.
    (*a*) Kindergarten, two grades.
    (*b*) Primary, nine grades.
    (*c*) Secondary.
        High Schools.
        Manual Training High Schools.
        Mechanic Arts High Schools.
        Agricultural High Schools.
        Vocation Schools.
        Trade Schools.
        Industrial Schools.
        Manual Arts Schools.
    (*d*) Higher Institutions.
        (1) Normal Schools.
        (2) Massachusetts Normal Art School.
    (*e*) Practice Schools.
7. General Education.
8. Supervisors of the same and other studies.
9. The Public.
10. School Committees and Superintendents of Cities, Towns and District Unions.
11. Principals of Schools.
12. Teachers.
    Special.
    Regular.
    Substitute.
    Practice.
13. Children.
    Normal.
    Defective.
    Unbalanced.
    Overdeveloped.
    Backward.

B. Distribution of the Work.

I. Assignment to each student of field for individual work, including school conditions, both city and rural.
II. Exploring actual conditions of given field to obtain information for making a theoretic time schedule of visits and office hours to print for teachers' use.
III. Investigation of materials, tools and physical conditions available or obtainable in each grade for a provisional course of study for three months to print for teachers' use.

IV. Private consultation with Supervisor's assistants.

V. *A*. Meetings for regular teachers for the purpose of explaining and illustrating the course of study.
  - (*a*) If possible, grade meetings for each grade separately.
  - (*b*) If not, combination grade meetings, as follows: —
    - (1) In cities, Grades 1 and 2.
      Grades 3 and 4.
      Grades 5 and 6.
      Grades 7 and 8.
      Grade 9.
    - (2) In rural schools, where grades are grouped, meetings for teachers of similar grade groups.
  - (*c*) In widely scattered districts, personal consultation with individual teachers.
  - (*d*) For special schools, and ungraded classes for deficient and backward children, special consultation for individuals or groups of teachers, as needed.

B. For teachers new to the corps, separate meetings.

C. For substitute teachers, individual consultation as necessary.

With consideration of the
1. Study of other school work.
2. Aims in teaching.
3. Grouping of work under topics and heads.
4. Progression of each subject in the grade and through successive grades.
5. Preparation of illustrative material.
6. The best and most economic use of materials and tools.
7. Study of local conditions, civic, business and home.

VI. Systematic visiting.
1. Personal schoolroom conduct.
2. Teaching model lessons.
3. Criticism of teaching.
4. Inspection and disposition of children's work.

VII. Completion of course of study for first half year.

VIII. Second series of teachers' meetings for consideration of special work for special days and seasons.

IX. Planning course of study for second half year.

X. Teachers' meetings for second half year.

XI. Meetings with principals to accompany or precede teachers' meetings.

XII. Round-table conferences.
XIII. Relation to Superintendent.
XIV. To School committee and subcommittees.
XV. Practical and æsthetic possibilities in school work and environment.
  1. Cultivation of æsthetic sense for ease in work and for taste.
  2. Application of this sense in making school, home and town more useful through intellectual attractiveness.
XVI. Exhibitions.
  (*a*) For children, of works of art.
  (*b*) By children, of their own work.
  (*c*) Special exhibits of industrial products related to the Manual Arts taught in the schools.
  (*d*) For showing practical relation of school work to increasing utility in the home through attractiveness.
  (*e*) Of buildings, bridges, parks and other features of civic life.
XVII. Prevision for next year.
XVIII. Financial.
XIX. Self-improvement (intellectual).
XX. Physical and mental personal obligations to the position.

The Supervisors.

The present situation as regards supervision is in general much like that noted in my report dated 1909, pp. 270-274.

Opportunity of special preparation for State supervision is to be found under "Field Notes" and "The Massachusetts Normal Art School."

During the last year a series of teaching and conference meetings has been planned and begun for the Supervisors of Manual Arts. In the morning the State Agent for the Promotion of Manual Arts teaches model lessons in several of the nine primary grades while six to eight Supervisors observe. The afternoon is given to a discussion of the lessons and the principles of teaching. The meetings are taking the place of the larger general conferences, and for the present, at least, are much more valuable.

The Massachusetts Normal Art School, Especially the Teachers' Class.

During the year several most important changes and additions have been made for the Teachers' Class of the Massachusetts Normal Art School, for two purposes.

1. To relate the work throughout directly to the needs of State supervision in all necessary details.

2. To make the class a permanent supply of efficient and thoroughly equipped teachers and Supervisors of the Manual Arts.

Through the courtesy of the Boston School Committee twenty-one classes in the Perkins School, grades one to five, and the Prince School, grades one to eight, have been placed at the disposal of the Massachusetts Normal Art School for the use of the Teachers' Class as a practice school of the Manual Arts. Each fourth-year student in the teachers' class has charge of an upper and a lower grade for a term of ten weeks each, and observes both in upper and lower grades ten weeks each. All work is done under two critic teachers, and includes drawing, painting, visual design and constructive work in the crafts.

For the teachers' four-years course Principal Bartlett has confined the academic and technical work in the arts, mechanical drawing, mathematical, shop and crafts work to years one, two and three, freeing the fourth year for specialized work.

For the specialized fourth-year work has been arranged a fifty-hour course in psychology and pedagogy, given by Miss Mary A. Laing, in place of Mrs. Batchelder, resigned.

And, finally, Miss Lucy D. Taylor has been engaged to give four days a week to the teachers' class.

The program for the class follows: —

Tuesday: —	
9 –12	Given subject, for example, Object Drawing.
12.30– 2	English.
Wednesday: —	
9 –12	½ class, Water Color. ½ class, Industrial Work.
12.30– 2	Blackboard Drawing.

Thursday: —	
9 –11.30	½ class, Woodworking.
	½ class, Arts and Crafts.
12.30– 2	½ class, Woodworking.
	½ class, Arts and Crafts.
Friday: —	
9 –12	Given subject, for example, Object Drawing.
12.30– 2	English, first half-year.
	History of Education, second half-year.
Saturday: —	
9 –12	Laboratory study of Supervision and teaching.
12.30– 2	Psychology, first half-year.
	Pedagogy, second half-year.

The Saturday laboratory work of the supervision course is given above, p. 232.

Such a course creates power within the student more successfully to adjust the Manual Arts to the requirements of the different cities and towns in the State, and to co-operate understandingly with superintendents and committees.

The Primary Schools.

Including a Constructive Outline for correlating courses of study in the Manual Arts for the nine grades, pp. 239-242.

The Supervisor's chief aim for the past ten years has been to make articles both usable in themselves and to which constructive and decorative design could be applied. While now, as a result of this experience, things for children to make are more wisely chosen, and practically suited to the child's development and social environment, visual design has proved to be, mentally, the most important and successful part of the work. It also becomes necessary at the present time to confine this crafts work in the nine primary grades to the kind of object-making which is vitally related to the industries, so that when the boy or girl senses the need of choosing a vocation, the experiences back of him will have widened his horizon sufficiently, and familiarized him with enough kinds of hand work, to help him choose more intelligently.

One disadvantage in the multiplicity of things made is that drawing has been noticeably crowded out to make time. Since drawing is the most universally available and important division of the Manual Arts, and visual design the most important mental element in the Manual Arts, drawing should be reinstated and even extended in time, and constructive design be made the foundation in all the crafts and manual training. That is, all objects planned to be given to children to make by hand should be based on constructive visual design. The place of drawing and design in the public school system has been discussed in my report as State Agent, dated January, 1909, p. 270.

Suggestions for outlining a course in the Manual Arts for the primary eight or nine grades, see pp. 239-242.

Because the aim of the Manual Arts in the public schools is to develop the brains and thinking power of children, the lines of the work will remain unchanged throughout the whole public school course. Since that is the case such a general outline as follows must necessarily be so simple as to seem unimportant. However, in practice, the application of the course is an extremely complex process, because it requires: —

1. The knowledge of how to develop brain and thinking power.
2. Keen observation of degree of development at each stage of the process.
3. Accurate judgment in what to give to keep the track open for further development; and, of equal importance, what not to give which might hinder the process by clogging, side-tracking or diffusion.

Familiarity with book and periodical publications is desirable, provided that the reader knows the definite needs of his own definite purpose, selects material which will meet those needs, and, most important of all, discards all the rest.

This present outline employs two lines of work in Visual Design, following two fundamental processes in which a child's mind instinctively works, "doing things" and "talking about things."

Constructive Outline.

For a course of study in Manual Arts for the primary grades 1 to 9 in "doing things" and "talking about things" which shall correlate —

- I. Drawing (Delineation) and Painting.
- II. Drafting.
- III. Constructive Handicraft in —
  - 1. Carving.
  - 2. Modeling.
  - 3. Embroidery.
  - 4. Weaving.
  - 5. Object Making
    - paper.
    - cardboard.
    - wood.
    - metal.
    - leather.
    - fabrics.

Special Note. — In arranging courses care must always be taken that, wherever possible, work at any given point (*a*) shall be suited to the time of year; (*b*) shall be related directly to the other studies as preparation, parallel, completion.

"Doing Things" in Visual Design through Constructive Handicraft.

"Talking about Things" by Drawing (Delineation) and Painting, Drafting.

Grade 1.

Constructive Handicraft.

I. *The making of simple objects,* in two or three dimensions, as far as possible hand work without the use of tools, which shall be complete in themselves and also visible units. The eye-watching process.

II. *Ornament applied.*

(*a*) With water color or colored crayons in shapes interesting to children, which shall break the surface up into other interesting shapes.

(*b*) Rhythm.

Drawing (Delineation) and Painting, Drafting.

I. *Picture writing,* for idea expression.

II. *Object drawing* of natural and made objects, to get vocabulary for idea expression and motives for visual design.

III. *Eye-training* in seeing differences in color, size, shape and relation of parts of objects drawn in two dimensions.

IV. *Hand-training* in following the eye.

Grade 2.

Constructive Handicraft.

I. *The making of objects a little less simple,* using tools requiring chiefly hand control, which shall be complete ideas in themselves and visible units. Eye-watching process for some general purpose.

II. *Ornament applied.*

- (*a*) With water color or colored crayons, in shapes interesting to move developed children's minds, to break the surface up into other interesting shapes.
- (*b*) Rhythm.

Drawing (Delineation) and Painting, Drafting.

I. *Picture writing* for more complete idea expression.

II. *Object drawing* of natural and made objects, to enlarge vocabulary for idea expression and obtain motives for visual design.

III. *Eye-training* in more ability to see differences in color, size, shape and relations of parts of objects to be drawn in two dimensions.

IV. *Hand-training.* More ability to use hands to guide tools used for drawing under direction of eye.

Grade 3.

Constructive Handicraft.

I. *The making of objects requiring somewhat of delicate hand-control,* which shall be complete ideas and visible units. Eye-watching, to compare others' and own results.

II. *Ornament applied.*

- (*a*) With water color or colored crayons to train the desire of the eye for balance by appropriate spots bilaterally arranged to keep unity of surface.
- (*b*) Rhythm.

Drawing (Delineation) and Painting, Drafting.

I. *Picture writing* and drawing of illustrations, to express ideas and accompany stories.

II. *Object drawing* of both natural and made objects, to increase power of observation and begin to express the effects of nearness and distance of separate objects not the third dimension of a single object.

III. *Eye-training* in simple proportion.

IV. *Hand-training* for more delicate control of tools used.

Grade 4.

Constructive Handicraft.

I. *The making of objects with more delicate hand-control,* which shall be complete ideas and visible units; and the beginning of more careful eye-training.

II. *Ornament applied.*

- (*a*) With water color or colored crayons, to further develop desire for balance, and begin to develop the power to see variety by applying to objects spots in bilateral and in radial balance.
- (*b*) Rhythm.

Drawing (Delineation) and Painting, Drafting.

I. *Drawing and painting illustrations* of written or spoken ideas (stories read or talks).

II. *Object drawing* of natural or made objects, to further increase power of observation and procure motives for visual design.

III. *Eye-training* in proportion, third dimension.

IV. *More delicate control of hand.*

Grade 5.

Constructive Handicraft.

I. *The making of objects, beginning of finger-control,* which shall be complete ideas and visible units. Eye-training for simple details.

II. *Ornament applied.*
  (*a*) With color or neutral in chosen medium, to train in simply decorating different shaped surfaces yet not to disturb unity.
  (*b*) Rhythm.

Drawing (Delineation) and Painting, Drafting.

I. *Drawing and painting illustrations* of written or spoken ideas.

II. *Object drawing* of natural and made objects, to begin to gain power to suggest third dimension.

III. *Eye-training* in more accurate proportion.

IV. *Drafting.* Eye-measuring and instrument-measuring of objects for freehand and instrumental working drawings.

V. *Finger-training* in freehand and instrumental drawing.

Grade 6.

Constructive Handicraft.

I. *The making of objects, continuing finger-control,* which shall be complete ideas and visible units. Eye-training as to which of several repeated operations is best.

II. *Ornament applied.*
  (*a*) Which has been designed by the children in variety of color and shape, combined to make units.
  (*b*) Rhythm.

Drawing (Delineation) and Painting, Drafting.

I. *Drawing and painting illustrations* for school work (geography, arithmetic, etc.).

II. *Object drawing,* both natural and made objects in three dimensions for the purpose of fairly accurate results, also motives for visual design.

III. *Eye-training* in seeing shapes of foreshortened surfaces, and proportion.

IV. *Drafting.* Eye and instrument measuring for two dimensioned drawing of different views of an object in simple freehand and instrumental working drawings.

V. *Continued use of hand and fingers,* for more control of tools.

Grade 7.

Constructive Handicraft.

I. *The making of special objects, including differentiation of boys' and girls' work,* to develop more technique in hand and finger control. Objects to be complete ideas and visible units. Eye-training for details.

II. *Ornament applied.*
  (*a*) To train eye-judgment in more and subtler variety of balance in color and shape to make unity.
  (*b*) Rhythm.

Drawing (Delineation) and Painting, Drafting.

I. *Drawing and painting illustrations* in connection with special work chosen by the children (diagrams, plans, sketches, etc.).

II. *Object drawing* of natural and made objects, singly and in groups, for special line of work chosen by children, both to gain more power in representing third dimension and also to get motives for visual design.

III. *Eye-training,* to know better the relation between facts and their actual appearance.

IV. *Drafting. Hand and finger training* necessary for the making of more quickly and carefully eye-measured and instrument-measured drawings of objects connected with special work.

GRADE 8.

Constructive Handicraft.

I. *Making of more specialized objects* which shall be different for boys and for girls. Continued training of hand and finger control, eye closely observing hand and finger movements, to produce more skill and create self eye-judgment of child's own work on its own basis. Objects to be complete ideas and visible units.

II. *Ornament applied.*
  (*a*) To train the eye to select or design ornaments for special purposes, which shall show more advanced ability to select or make units with balance and variety, of color and shape.
  (*b*) Rhythm.

Drawing (Delineation) and Painting, Drafting.

I. *Drawing and painting of illustration* applied to special work chosen by children.

II. *Object drawing* of natural and made objects related to specialized work.

III. *Eye-training* in the power to see objects as they actually appear in more varied positions, for ability in memory-drawing, and for the understanding of the complete construction of objects seen.

IV. *Drafting* continued, but more complex than in Grade 7.

GRADE 9.

Constructive Handicraft.

I. Making of objects which shall be complete ideas and visible units. Delicacy of hand and finger control of kind demanded for specialized work. Self eye-judgment of child's own work on its own basis.

II. *Ornament applied.*
  (*a*) For the purpose of training the eye to make fine distinctions in designing and choosing ornament for specialized work.
  (*b*) Rhythm.

Drawing (Delineation) and Painting, Drafting.

I. *Drawing and painting,* both freehand and instrumental, closely related to specialized work of the grade.

II. *Drafting and drawing,* to be done from data actually given, or partially or wholly imagined.

THE SECONDARY SCHOOLS (HIGH).

The present High School situation and suggested High School courses in the Manual Arts have already been considered in the report of the State Agent for the Promotion of Manual Arts, dated January, 1909.

THE STATE NORMAL SCHOOLS.

Including courses of study, pp. 243-252.

Massachusetts Normal Art School, Boston, Bridgewater, Fitchburg, Framingham, Hyannis, Lowell, North Adams, Salem, Westfield and Worcester.

The Massachusetts Normal Art School has already been considered, at p. 236, with its provision for training Supervisors of the Manual Arts.

The four following widely variant courses of study give an idea of what is being attempted at the present moment in the Manual Arts department of the State Normal Schools.

Course 1.

With the junior class this fall has been taken Representation or Appearance Drawing. We have drawn the type solids, sphere, hemisphere, cone, cylinder, cube and square prism, also similar forms, natural and artificial. The natural forms were taken from the school gardens. The work has been related to the work in mathematics and science.

We have studied the principles underlying Representation, and have considered the methods of teaching the subject.

Vase forms have been studied for form and curvature, to develop an appreciation of refinement and elegance.

Arrangement and Decoration have been considered with reference to the students' rooms and the classroom.

Water colors, handling and harmony.

Stenciling with water colors for schoolroom needs (book covers).

The juniors have designed and decorated an envelope to contain the material gathered in connection with their study of Literature. They have made place and menu cards for Thanksgiving, and have done some painting. They are now busy with construction work for Christmas — calendars, boxes, bookmarks and cards. These will be appropriately decorated with decorative units cut from paper or drawn and painted with water colors. This work is closely related to constructive work done in their study of Geometry.

Pictures by the masters and good present-day illustrations relative to the Christmas festival will be studied.

January and February will be given to Drawing in Representation largely. The work will include drawing on the blackboard, work from memory and imagination, group drawing, etc.

March, April, May and June will be given to Color and Design.

The works of art in the school building and those sent through the Library Art Club will be studied.

The senior class commenced the work this fall with lessons in the cutting and care of flowers and plants for schoolroom and the home uses.

Studied flower arrangement.

Choice of vase for the flowers gathered from the gardens.

Placing and lighting of flowers arranged.

Household decoration from the standpoint of the house decorator.

The drawing and painting of flowers for the purposes of Design.

The making of patterns from their drawings and their applications to the decoration of the home and schoolroom. Cloth, leather and metal have been used.

Stenciling with oil colors.

Teaching the use of the Drawing kits.

Working drawings.

Developments.

During the fall the seniors gathered the flowers and arranged them for their rooms, the classrooms, and on Saturdays sent them to the Hospital.

The juniors and seniors have work with the Director of Domestic Art. We have worked together in applying Design to the sewing and household arrangement.

The students have been told where the materials used have been bought, and have been sent to select and purchase those for personal use obtainable in the city.

Attention has been called to the various publications helpful in teaching Drawing, also to the work of American artists.

Course 2.

Representation.

Model and Object Drawing.

Principles; effects of distance for shortening, etc.; size, level, distinction.

Discovery of above: —

I. In application of (pencil, chalk) in many quick sketches of familiar objects, such as pails, dishes, watering trough, tower, lighthouse, etc., boxes, furniture, houses.

II. From observation of object for: —

1. Proportion.
   - Mass.
   - Action.
2. Relation: —
   - To background.
   - To other objects.
3. Technique.
   - Study of detail, rims, handles, etc.
   - Suggestion of solidity and texture by accent and quality of line.
   - Use of various media, — pencil, chalk, water color.
4. Composition.
   - Selection of groups.
   - Arrangement of groups.
   - Rendering of groups.

III. Trees, animal, pose: —
  - For character, action, etc.
  - ——— in illustrative sketching.
    - Motifs in design.

IV. Plant drawing.
  1. Quick rendering in silhouette for: —
     - Character of growth, action, etc.
     - Relation of parts as to: —
       - Size.
       - Position.
       - Background.
  2. Study for accurate rendering (pencil): —
     - Foreshortening of leaves.
     - Foreshortening of flowers.
     - Study of joints and other peculiarities of growth.
  3. Effects of color (with brush, directly).
  4. Arrangement in frame, according to laws of Design.
     - Division of space.
       - Line.
       - Mass.
         - Values.
         - Color harmony.

NOTE. — The gathering of material for all nature lessons by students is made an important feature, also for lessons in model and object drawing, when the possibilities of utilizing that supplied by possible environment of schools is discussed and emphasized. Helpful articles and books are also noted.

COLOR.

I. Theory of: —
  1. Color unit-Spectrum. (" Color wheel.")
  2. Modification of color.
     - Value, hue, intensity (illustrated by " color wheel ").
  3. Value, — recognized, defined.
     - Scales of value, neutral.
     - Scales of value, color.
  4. Hue, — recognized, defined.
     - Related to standard, added to color wheel.
  5. Intensity, — recognized, defined.
     - Scales of intensity.
     - One modification in intensity of each standard and hue added to color wheel.

II. Harmonies of color, defined, obtained through: —
  1. Relation in value.
  2. Relation in analogy.
  3. Relation in opposition.

III. Application of, in: —
  1. Nature drawing.
  2. Object drawing.
  3. Craft work which employs color (basketry, weaving, embroidery, stenciling, etc.).

IV. Appreciation of: —
  1. Consideration in dress, home furnishing, room decoration, schoolrooms, civic beauty, etc.
  2. Necessity in interpretation of literature.
  3. Enjoyment of beauty in nature, in art, etc.

Design.

I. Decorative.
  1. Principles of: —
    Space division by: —
      Line.
      Mass.
        Motifs.
          Abstract form.
          Plant, tree, animal, etc.
    Balance.
    Rhythm.
    Harmony.
  2. Application in all craft work calling for ornament in: —
    Lettering.
      Study of alphabets.
      Printing mottoes, advertisements, etc.
      Study of books.
        Cover, titlepage, subject-matter, etc.
      Blackboard work.
    Arrangement of bulletin boards, schoolroom.
    Dress.
    Arrangement of rooms.
    House fronts, street skyline.
    School yards, gardens, parks, etc.

II. Constructive Design (Department of Manual Training).
  1. Objects made in two dimensions.
  2. Objects made in three dimensions.
    Form determined by: —
      Utility.
      Natural beauty.

Note. — The study of the history of the Arts in the United States, and especially in the schools, is a feature of the work. Courses of study in Manual Arts are studied and compared. Students observe lessons in all the grades also.

MANUAL TRAINING.

I. Making sketches.
II. Working drawings.
III. Constructive design.
IV. Handicrafts.
V. Modeling and carving (at present limited on account of conditions).
VI. Weaving, reed, raffia, string, yarns.
VII. Embroidery.
VIII. Stenciling.
IX. Making of objects in paper, cardboard, wood, metal, etc.

Course 3.

The pupils in the Normal School come from high schools where excellent work has been done, from high schools where little training has been had, and frequently the pupils who come to us have had no instruction in art. Our first aim is, therefore, to arouse an interest in the subject, and appreciation of its value to the individual, whatever his walk in life may be, and of its great value to the teacher. We have tried to make the work as broad and far reaching as possible in the time allowed to the department.

The general outline which we submit is usually followed, but is modified when the larger interests of the classes or the school seem to demand a change.

In the fall we begin our work in color and nature drawing. Later, the material thus obtained is used in composition and applied design. Still later come the problems in structural design and mechanical drawing, followed by the making of the objects planned. The study of appearance or pictorial drawing is used frequently in relation to the structural work. (See outline for structural work.) Object drawing, grouping, the study of foreshortening and convergence demand considerable of the time in the winter months.

There is also observation and practice work in the practice schools. Frequently the work is dictated by the work in the industrial laboratory or any other department in the school where the requirements seem to demand drawing. For example, the planning of beds for the school gardens; color scheme for flower beds, etc.

GENERAL OUTLINE FOR THE JUNIOR CLASS.

Time: two periods of forty minutes each.

1. Frequent observation of lessons given by the supervisor in the practice school. Later these lessons are discussed in the classroom, or the work is reproduced by the students.

2. *Color.* — General review of systems previously studied in the grades. Color schemes planned for any school work.

Plans for color schemes for schoolrooms, the home, dress, etc. Illustrative materials brought and discussed by the pupils.

One simple color chart made by each pupil.

3. *Design.* — Modifications of geometric figures, square, oblong, circle, etc., for use in wood and metal work.

Designs for bowls, vases, baskets, woodwork, and other simple forms to be constructed in the manual work.

Space breaking, and application of principles of design in simple units to be applied to metal, leather, fabrics, books, etc.

4. Tooling, stenciling and weaving for the structural work, color and design. Lettering.

5. *Object Drawing.* — Quick sketches of objects made or to be constructed. Sketches from the object, or from memory, upon the blackboard or upon paper.

6. Illustrative sketching for work in history, language, literature, etc. This work includes landscape composition, pose, animal drawing, etc.

7. *Nature Drawing.* — Birds, moths, shells, etc., in pencil, crayon and water color. This work is done only in connection with the science study.

Senior Class.

Time: two periods each week of forty minutes each.

1. Each division spends about two months in the practice school. During that time the pupils observe work by the grade teacher and by the Supervisor. They also give lessons and assist the grade teacher.

Each pupil keeps a record or report of the lessons given, and illustrates it by her own sketches. These reports are later discussed in the class room.

2. *Nature Work.* — Each pupil makes an exhaustive study of some plant or tree in the science work. This study is illustrated by sketches in pencil or color, and is finished in book form, with a cover and title-page suitably lettered and designed.

3. *Blackboard Sketching.* — Before going into the practice school each division receives instruction in quick blackboard drawing illustrative of many lines of school work. Students are expected to use the board freely, and illustrate any lessons demanding such illustration, or whenever the pupils may be helped by the drawing.

4. *Object Drawing.* — As in the junior class, the pupils make quick sketches of objects to be made, or of objects already constructed. They also study grouping and composition, the mediums used being pencil, charcoal, crayon and water color. This work necessitates the study of convergence, foreshortening, etc.

5. *Structural Drawing.* — In both the senior and junior classes the pupils make sometimes freehand and sometimes mechanical drawings (to scale, etc.) before constructing an object. There is frequent consultation with the teacher of mathematics. See suggestion for structural work.

6. *Design.* — Whenever needed for books, fabrics, leather, etc., the teaching of design is introduced. It is strictly applied design, and is not studied as an isolated branch. Lettering is introduced in connection with the book work, covers, titlepages, etc.

7. *A Short Course in the History of Art.* — Sometimes papers are prepared by the students, and sometimes the talks are given by the instructor.

Course 4.

The following plan indicates present attempts. Improvements are looked for continually. Some parts await further facilities before being carried out in full.

SYNOPSIS.

- Aim
  - To develop appreciation of beauty in
    - nature.
    - man's productions.
  - To develop the discerning judgment necessary to successful production and to satisfactory purchasing.
  - To cultivate the power of adequate and beautiful manual expression.

- Divisions of the subject
  - Industrial Arts.
  - Pictorial Drawing.
  - History of Art.

- Industrial Arts includes
  - Knowledge of Industrial Materials
    - production
      - source.
      - refinement.
      - cost.
    - manipulation
      - possibilities.
      - limitations.
  - Knowledge of Industries
    - typical.
    - local.
  - Knowledge of Design [expressed by working drawings]
    - constructive.
    - decorative.
  - Making things to meet the requirements of
    - the school.
    - the home.
    - the community.
    - one's self.

- Pictorial Drawing includes
  - Knowledge of Perspective Effects.
  - Technique of the Media.
  - Knowledge of Pictorial Design.
  - Making Pictorial Drawings.

- History of Art includes
  - Study of Historic Handicrafts.
  - Study of the Fine Arts of
    - architecture.
    - sculpture.
    - painting.

ESSENTIALS OF ART EXPRESSION.

- Design
  - constructive
  - decorative
  - color
    - local.
    - apparent.
  - form
    - geometric.
    - natural.
  - arrangement
    - order, unity.
    - balance, rhythm, harmony.

- Technique
  - of execution
    - mechanical.
    - freehand.
  - of the media
    - crayon.
    - pastel.
    - pencil.
    - brush.
    - charcoal.
    - pen.

TIME SCHEDULE — FOUR YEARS.

NOTE. — The forms of work assigned to the Model School during any year are those studied in Normal Classes the previous year. Thus students are prepared for teaching in the grades.

YEARS.		INDUSTRIAL ARTS.						PICTORIAL DRAWING.		HISTORY OF ART.	
		DESIGN. Constructive — Determined by the use of the object and nature of the material. Decorative — Units selected and arranged to harmonize with the constructive elements of each object. Color — Harmony expressed in each object and in its relations.			CONSTRUCTION. Materials — Emphasis on those of greater value. Processes — Acquired in order of their difficulty. Objects — Selected on the basis of interest and need as far as possible. Industries — Visited when feasible. Collections showing processes in manufacture. Products from the best plants.			Design — Study of historic and contemporary art. Drawings — Emphasis on nature drawing.		Collections — Work of leading craftsmen. Visits — Art museums. Buildings architecturally interesting.	
Normal Department.	Model School.	Constructive.	Decorative.	Color.	Materials.	Processes.	Industries, Trades, Occupations.	Design.	Drawings.	Historic Handicrafts.	The Fine Arts.
1906	1907	Constructive drawing adapted to the processes of the year.	Space division. Natural units.	Apparent.	*Of One Dimension.* Splints. Sticks. Paper strips. Yarns. Worsteds. Chenille. Roping. Jute. Cord. Thread. Raffia. Reed. Tilo strand. Cane. Iron.	Planning. Measuring. Building. Weaving. Braiding. Winding. Knotting. Crocheting. Tatting. Knitting. Sewing. Embroidering. Caning. Bending.	Textile. Basketry. Sewing. Embroidering.	Perspective effects of natural forms.	Subjects from the vegetable world. Landscapes.	Textiles. Embroideries.	Architecture.

1907	1908	Constructive drawing adapted to the objects constructed.	Space division. Geometric units.	Local.	*Of Two Dimensions.* Tablets. Paper. Cardboard. Canvas. Burlap. Tilomatting. Cloth. Leather. Sheet metal.	*Additional.* Folding. Drawing. Squaring. Cutting. Covering and lining foundations. Assembling and adjusting. Fastening. Finishing.	Paper. Leather. Box making. Stencilling. Bookbinding.	Perspective effects of geometric forms.	Subjects from the vegetable world. Street scenes. Architecture (ornament). Conveyances.	Evolution of the book. Illustrating.	Sculpture.
1908	1909	Constructive drawing adapted to modeling.	Space division. Natural units.	Apparent.	*Of Three Dimensions.* Clay. Leather. Metal.	*Additional.* Building up. Modeling. Turning.	Ceramics.	Perspective effects of natural forms.	*Subjects from.* Vegetable world. Animal world. Human figure.	Historic Potteries. Leather. Jewelry. Metal work. Enameling.	Painting.
1909	1910	Constructive drawings for objects to be constructed in wood.	Space division. Geometric units.	Local.	*Of Three Dimensions.* Wood.	*Additional.* Whittling. Sawing. Planing. Boring. Beveling. Nailing. Screwing. Chiselling. Jointing. Wood finishing.	Carpentering. Cabinet making. Carving.	Perspective effects of geometric forms.	*Subjects from.* Vegetable world. Still life. Interiors.	Wood carving.	Architecture.

NOTE. — The two-years course includes only such elementary forms from the above as are essential for teaching in the lower grades.

STUDENT TEACHING.

CLASSES.	School.	Forms of Work.
Junior,	Normal,	Assistance in the administrative duties of the school. Simple forms of teaching individuals. small groups.
Senior C. B.,	Normal,	Teaching of Normal Classes.
	Model,	Teaching of individual children. small groups of children. classes of children.
Departmental students,	Normal,	Direction of administrative work.
	Model,	Responsibility of a class for an extended period. Direction of work in the craft shop.

THE YEAR'S APPORTIONMENT OF TIME.

September to October — Pictorial Drawing (vegetable world).
November to January — Industrial Arts.
February to March — Pictorial Drawing.
April to May — Enrichment (color, form).
June — Pictorial Drawing (outdoor sketching).

I. EXCEPTIONS AND MODIFICATIONS.

(*a*) *Normal Department.*

Juniors and Departmental students, September to October — Introductory, for the scope of the subject, nature of required work and technique.

B.: February to June,
- Library bookbinding.
- History of Art.

Elective: Pictorial,
- light and shade in
  - charcoal.
  - water color.
  - pen and ink.
- craft work in
  - fine bookbinding.
  - jewelry.
  - metal work and enameling.
  - cabinet work.
  - leather modeling.

(*b*) *Model School.*

Primary Grades,
- Pictorial Drawing throughout the year.
- Industrial Arts throughout the year.

Grades IV. to VIII.,
- September to October — Pictorial drawings also treated decoratively for an object to be made, involving a review of the previous year's constructive elements.
- November — Printing; construction of schoolroom conveniences for the year.
- December — Booklet making.
- January to February — The special industrial work of the year.
- March to April — Pictorial Drawing.
- May to June — Enrichment
  - color.
  - form.

NOTE. — During the eight years, each child has two opportunities to study the leading forms of manual expression: weaving, cardboard construction, modeling, carpentering. The form of the work given is adapted to the age of the child.

II. Additional Courses in the Industrial Arts.

Grade.	Subject.	Teachers.
VII., girls, ...	Sewing, ...	Departmental students.
VII., boys, ...	Carpentering, . . .	Normal men.
VIII., girls, ...	Book making, . . .	Departmental students.
VIII., boys, ...	Carpentering, . . .	Normal men.

It is agreed among the Normal School teachers of the Manual Arts that it is not possible to equip a student for the work of the nine grades in this subject in less than two hundred periods of forty-five minutes each.

Although, in most instances, the conditions under which the teaching of the Manual Arts is now done prevent its full efficiency, it must be understood that the time as at present used is not being wasted.

The time for Manual Training is more nearly the same in the several Normal Schools, while less time is given to the Manual Training than to the Manual Arts teacher. The handwork of the Normal Schools unfortunately comes under these two departments of Manual Arts and Manual Training; unfortunately, since they often work on differing fundamental principles. On a basis of Constructive Visual Design both could be included under Manual Arts.

In any case, the work of the two departments should be so absolutely differentiated that there is no waste from confusion, duplication and contradiction in their efforts; but, on the contrary, that each should be able to count on certain work of the other as basis or completion of its own, or as correlation for specific purpose; that their co-operation should result in economy of time and material, concentration of effort, more comprehensive covering of the entire field of handwork possible for Normal Schools, and more definite mental and technical result.

The aim of the Normal School course in Manual Arts is to fit teachers for developing in the primary schools the physical brains and mental powers of children five to fourteen years old, largely by means of fundamental practical problems in handicraft, which shall bring as by-product sufficient general aptness in correlation of mind, eye and hand

(*a*) To solve the problems adequately.

(*b*) To give appreciation of technical skill wherever found.

(*c*) To supply the knowledge of how to acquire the technique demanded by any class of skilled labor, should such specific power prove necessary for wage earning, for secondary or higher school work, for personal development or pleasure.

The training must, as far as possible in the time given, develop the student's mental powers by exactly the same physical and mental means, in exactly the same steps, through exactly the same constructive mental process from the same starting-point to the same determined end, which are to be used later in the actual school employment of developing children's minds throughout all the eight or nine primary grades.

As the graded primary work is a consistent constructive whole, each teacher must know definitely the relation of the single grade taught to the whole course, in order to build upon or prepare for the next grade. At each step of the way each problem given is chosen for its demand upon actual mental and physical powers of children, and for its actual result to children's minds. By following these guiding principles, and by avoiding complex and time-consuming problems, some fundamental work may be done in all crafts without diffusion of effort, and, both physically and mentally, with cumulative result.

Whatever systematic scheme may be arranged for actual teaching of children, however rigid or flexible it may be and however variable in detail, whether the particular teaching occasion results from outside direction by teacher or from original self-interested choice by child, the following fundamental distinctions underlie all selection of problems.

Both between different crafts and within each craft itself, exact differentiation between kinds of material must be made from each of three view-points.

1. The first is the physical view-point, that of the body as tool. Material must be selected for increasingly subtle muscular treatment: by hand; by finger; by direct hand and finger controlled tool (pencil, knife, etc.); by intermediate hand and

finger controlled tool (paste in brush, water color in brush, thread in needle, etc.).

2. The second is the mental view-point. Material must be selected for need of increasingly subtle correlation of eye with direct and intermediate muscle-control, and also for need of wider and wider range of mental process corresponding with increased variety of manipulation demanded by the successive problems.

3. The third view-point is that of actual gain by children, in handling material, of the conscious mental habit of recognizing power to discover and to control the mind from within itself.

Of these three view-points, all concerning results to children, 1 and 2 may be classed together as of muscle and brain technique, of which unconscious acquirement under direction is intended as means to development of 3, conscious personality, self-active mind.

On the other hand, a fourth view-point must be used which also concerns results, but those to the material itself: does the handling process produce only means, raw material for further use (spinning, braiding, cloth weaving, etc.); does it produce objects in themselves complete ends (rug weaving, basketry, box making, etc.); does it at the same time produce raw material and complete ends (patchwork squares for quilts, crocheted and knitted blocks for afghans, etc.)?

With data so obtained a systematic and consistently constructive course can be arranged, which shall accomplish three distinct and most desirable ends: —

1. Economy of time, by avoiding needless duplication of simple mental processes underlying several crafts.

2. At the same time, parallel co-operation, through interchange between crafts, for increase of interest in work and number of crafts available in the course, by allowing repetition of the simpler processes necessary for mental discipline to be made in variety of hand work.

3. Cumulative co-operation of the whole range of crafts, since the opportunity for intelligent choice, where a complex experience demands complex mental process, so permits selection of portions from parallel cases of identical underlying principle

that the needed complex experience may be begun in one craft, continued in a second, and finished even in a third.

Moreover, the training in judging handicraft by mental result develops the essential three-fold teaching faculty, the recognition, the grasp, the combination, of available or obtainable means, however unpromising such means may seem for the desired end.

The course given above (at p. 239) for the grades, 1 to 8 or 9, will serve as guide for teaching the Manual Arts in the Normal School until, under present unexpected and rapidly changing conditions, it becomes possible to prepare a more definitely detailed course of study.

I wish to acknowledge the valuable counsel of Mr. George Turner Phelps of Cambridge, Mass.

Respectfully submitted,

FREDERIC LYNDEN BURNHAM.

APPENDIX E.

EXTRACTS FROM REPORTS ON

SPECIAL SCHOOLS FOR DEAF, BLIND AND FEEBLE-MINDED; ALSO MASSACHUSETTS HOSPITAL SCHOOL.

SPECIAL SCHOOLS.

In accordance with the provisions of chapters 39 and 87 of the Revised Laws and chapter 446 of the Acts and Resolves of 1904, the Commonwealth provides for the care of children who, on account of their physical or mental condition, are unable to attend the public schools. The institutions to which these children are sent are as follows: —

1. The American School at Hartford, Conn., for the Deaf, JOB WILLIAMS, L.H.D., Principal.
2. The Clarke School for the Deaf, Northampton, Miss CAROLINE A. YALE, Principal.
3. Horace Mann School for the Deaf, Boston, Miss SARAH FULLER, Principal.
4. Sarah Fuller Home for Little Deaf Children, Medford, Miss ELIZA L. CLARK, Matron and Principal.
5. New England Industrial School for Deaf Mutes, Beverly, Miss MARTHA O. BOCKÉE, Superintendent.
6. The Boston School for the Deaf, Randolph, THOMAS MAGENNIS, Superintendent.
7. Perkins Institution and Massachusetts School for the Blind, Boston, EDWARD E. ALLEN, Director.
8. Massachusetts School for the Feeble-minded, Waltham, Dr. WALTER E. FERNALD, Superintendent.
9. Massachusetts Hospital School (for Crippled and Deformed Children), Canton, Dr. JOHN E. FISH, Superintendent.

THE AMERICAN SCHOOL FOR THE DEAF.

JOB WILLIAMS, PRINCIPAL.

REPORT OF THE PRINCIPAL.

For the school year ending in June, 1909, the attendance was 173, — 102 boys and 71 girls. Of these, Massachusetts sent 56, — 36 boys and 20 girls. Eleven pupils were graduated at the end of the year, — 5 boys and 6 girls, — 4 of whom — 2 boys and 2 girls — were Massachusetts pupils.

The school day begins at 6 o'clock in the morning and ends at quarter past 9 in the evening. The class sessions are from 9 to 12 and from 2 to 4, with an hour for study in the evening under the supervision of teachers. From quarter past 7 to quarter before 9 in the morning, and from quarter past 4 to quarter before 6 in the afternoon, the time is given to industrial training, — one set of pupils working in the morning and another in the afternoon, five days in a week. On Saturday the forenoon is given to industrial work, the smaller boys working in sets for an hour and the larger boys for two hours. Sloyd and cabinet making are taught the boys. The girls receive instruction in sewing, dressmaking, mending, cooking, ironing, and in various parts of light housework. The endeavor is to fit our pupils to go out into the world able to earn their own living, and to be producers and not consumers. In that respect the success of the school in all its past history has been very gratifying. The number who have become dependents has been remarkably small.

In the younger classes in school work the time is largely devoted to the acquisition of a ready use of the English language, both spoken and written, as this must be the foundation of future progress. This is the hardest task that the congenitally deaf child has to accomplish, and requires incessant drill from the beginning to the end of his school course. Whatever subject he may be studying, history, geography or any other, the study of the English language and ability to express ideas in it is a part of it, and often the most important part.

The general health of the school was excellent and good progress was made in all departments.

THE CLARKE SCHOOL FOR THE DEAF, NORTHAMPTON.

Miss Caroline A. Yale, Principal.

Extracts from the Forty-second Annual Report for the Corporation.

The number of pupils enrolled in the Clarke School for the Deaf during the past year was 154. Of these, 110 were supported by the State of Massachusetts, 8 by the State of Vermont, 6 by New Hampshire, and there were 30 paying pupils.

The on-going of the school in all that relates to the work of the teachers and the progress of the pupils has been satisfactory. The school is still suffering, and apparently may long suffer, for the need of appropriate equipment for its work. Private benefactors look upon the school as under the protection and commanding the support of the State; the authorities of the State look upon it as largely a private institution, founded by the gifts of a single individual and directed by a self-perpetuating body. The State has for many years paid into the treasury of the school a fixed sum for each of a hundred or more pupils whose parents and guardians have chosen this school and its methods, under the liberty given by the statute, for the instruction of their children. Although the sum paid has, with increasing expenses of living, been several times augmented, the State has never covered the full cost to the institution of the tuition and board and supervision of its pupils. How great is the amount which this school has contributed, in the forty-two years of its existence, to the wealthy state of Massachusetts, cannot be correctly estimated; but, if we include the interest on the plant, which is worth nearly or quite $200,000, the sum mounts into the hundreds of thousands of dollars. Undoubtedly the influence of the school has been greatly enlarged by this connection between the school and the State. On the other hand, the discharge of the great obligation to very many handicapped for life has been accomplished by the State at a very low cost, and in a manner which has brought honor to the State in the entire country and wherever in Europe there is interest in the teaching of deaf mutes. It is to the great honor of Massachusetts that early and cheerfully the obligation of the State to children deaf, or otherwise limited, was acknowledged, and generous provision made for the education of such children. This is in marked contrast to the slowness with which, for instance, in England this obligation of the State has been discharged. The State of Massachusetts was the first of the New England States to incorporate and patronize a school where lip-reading and articulation should be the method of bringing deaf mutes into communication and social relations with their fellow-beings. This method has now been partially adopted in nearly all of the great schools of the country and in some wholly. It has been a wonderful movement, and one in which this school has always been in the very front rank and has always received the commendation of those qualified to judge.

. . . .

The per capita expenses in a school like ours are necessarily beyond those in larger schools. Difficulties of grading often necessitate small classes, although it is now customary in all the best schools for the deaf, by whatever method taught, to reduce the size of the class to 10 or 12, because of the great need of individual instruction in every department of this work. The division of the schools into three departments, both for family life and for school work, with the increased number of supervisors for these groups of children, surely increases the expense of these groups of children, but all these increased expenditures are made entirely in the interests of the pupils, and because better results may be obtained for them by so doing. The best that training can do is surely none too good for children so handicapped.

. . . .

No pupils were graduated from the school proper this year. Pupils are not graduated unless they have completed a definite course of study, for which ten or twelve years is allowed. This certainly is not unreasonable when one considers that the average hearing child, entering school with a considerable use of language at his command, is allowed nine years to reach even the high school. In addition to this mental development these graduates have acquired a valuable amount of speech and speech-reading. Occasionally parents desire to remove a child before the close of its school term in order to put him to work, but quite as often the parents are eager that the child should remain at the school as long as possible.

In its special work of education for the deaf by the method of articulation, the Clarke School has gained and maintained a position universally recognized. But in the matter of industrial training, which has of late assumed a new importance, now fully sanctioned by recent legislation, we have long pursued here a course which has shown for years interesting results. In our cabinet shop and in wood-carving, as well as in our sloyd classes, drawing classes and household economics, we have so trained boys, and in drawing and domestic work girls also, that our graduates have invariably become self-supporting. Those pupils who have left the school before graduating, for one reason or another, have also, in most cases, been able to earn their own living, unless feeble-mindedness or parental neglect prevented. This fact seems to entitle us, even more than the excellence of the training we give in English and in good habits, to the repayment by the State of the whole expense we annually incur. Without advertisement or parade we have been doing here, according to our opportunities, for at least thirty years, what public opinion at last demands under the title of "industrial education." To illustrate and support what is here said, we beg to copy from the latest report of your Board (pp. 362–364) this statement, made by our principal, Miss Yale, in response to inquiries by an agent of the Board of Education: —

> Realizing that the greatest needs of the deaf child are power of expression and communication, as well as fuller mental development, we have always kept the five hours of the school day intact for the acquisition of spoken and written language and the studies of the ordinary elementary school course, and have relegated so-called industrial work to the out-of-school hours, giving every child one or two hours each day of this training.
>
> One of the advantages of a boarding school for a considerable percentage of our pupils is that boys and girls may, in the most natural way, engage in the multitudinous helpful activities of a systematically conducted household. Each child, according to his age and capacity, assists in the care of his own bedroom, and takes his small but regular share in the care of the common play rooms, sitting rooms, study and school rooms, while the older boys are responsible for the care of shops and gymnasiums.
>
> Each boy may — on payment of the cost of material — become the owner of the chair, table, desk, sideboard or clock-case which he has made. The policy of introducing a number of trades and assigning a part of our boys to each, has seemed to us unwise for many reasons. We have judged it wiser to confine their industrial training to the use of a single material and that preferably wood. This training, added to the mental development which they gain, will prepare them to make a wise choice of occupation and fit them to succeed in it. Naturally, in a manufacturing State like this, many of our boys will take up the same work as that in which their fathers and brothers are engaged, and for which the skill of hand and eye and the habits of industry inculcated here will help to fit them.

The normal pupils numbered 11 the past year. They pay for their board, but the American Association to promote the Teaching of Speech to the Deaf contributes $1,500 yearly for the tuition of 10 of these pupils. It was at the request of this association that the school undertook the work of training teachers. The graduating exercises occurred on the evening of June 8, when addresses were made by Hon. F. B. Sanborn, Prof. Irving F. Wood and the president of the corporation. It was a very interesting occasion. The 11 pupils, from different States of the Union, who had consecrated themselves to the great work of teaching speech to the deaf, represented in one of its noblest aspects the influence of modern Christianity. It was impossible to think of them as carrying the teaching methods of this school into all parts of the country without a deep feeling of gratitude that a work is being done here so quiet and obscure as to be almost unknown in the whirl of modern life, and yet certain to bring to very many children a large reach and joy of companionship from which deafness naturally shuts them out. As one of the speakers said, they are "to perform the miracle of making the dumb to speak." The graduation of ten or more teachers each year from the normal class of this school is a service which the members of the Board may well consider as entitling this school to special recognition. A distinction so unique may well receive attention from the Board, as a chief function of the Board is to see that good teachers are trained for the children of the Commonwealth. Graduates of our normal class are now teaching deaf mutes according to the methods of this school in 27 different States of the Union.

HORACE MANN SCHOOL FOR THE DEAF, BOSTON.

Miss Sarah Fuller, Principal.

Report of Walter S. Parker, Assistant Superintendent, Boston Public Schools.

The Horace Mann School reopened on the 9th of September, 1908, with 136 of its former pupils, — 68 boys and 68 girls. During the year, 20 boys and 12 girls were admitted, 4 boys left to go to work, 2 girls died, 1 girl left to enter a school with hearing children, 1 to go to work, and 3 other girls on account of delicate health, making the number of pupils at the close of the year in June, 1909, 157, — 84 boys and 73 girls.

Eight pupils were graduated on the 25th of June and received diplomas. Six of these had acquired a knowledge and use of spoken English before entering the Horace Mann School, and on leaving it, with an understanding and use of written English, an appreciation of books as a means of continuing their education through life, and with trained sight to enable them to understand the speech of others, they were prepared to go on with advanced courses of study in schools with hearing pupils, or to take places with bread-winners, if necessity required.

Reports of the success of the graduates of 1908 are gratifying, as showing the ability of deaf boys and girls to share, with hearing persons, opportunities for study and work. One boy last year earned good rank in a private school for hearing boys, another held his place in a large public high school, 2 others did commendable work in a manual training school, while 2 others had mechanical work with hearing young men.

The progress of the pupils in all of the various departments was uniformly good throughout the year.

In the new provisional course of study for the elementary schools of Boston are statements which so aptly express thoughts that dominate all efforts for the education of deaf children that they are here quoted: —

> The object of the English work in elementary schools is to train pupils to speak, read and write the mother tongue, and to enjoy and profit by its literature. . . .
>
> For the reason that we make use of the mother tongue in speech far more than in writing, and because an individual's degree of education and culture is judged by his speech more often than in any other way, it seems imperative that a definite, progressive, far-sighted effort should be made to improve the speech of the pupil. . . .
>
> Progress in spoken English is dependent upon environment, instruction and practice. . . . Practice is the most effective means of getting the power to use language correctly, as speech is mainly a matter of habit. . . .
>
> The aim of the work in elementary reading is to train the pupils so that they may be able to find independently the thought expressed in

written or printed words, in order that they may eventually turn to books for knowledge, pleasure and inspiration. . . .

The Boston Educational Association for Deaf Children continues its valuable services for the pupils of this school by providing for weekly meetings of ladies with the older girls and of gentlemen with the boys. In addition to encouragement in the use of speech and speech-reading, these friends took the pupils to places of amusement, to points of historical interest and for occasional automobile drives.

The association also made possible much-needed instruction in speech, speech-reading and English to slow and backward pupils by a generous expenditure of money for out-of-school teaching.

Under the direction of two members of the association a class for instruction in handcraft was formed, and met regularly for one afternoon lesson each week during the months of April, May and June.

Vacation classes for lessons in millinery, dressmaking and handcraft were taught during the month of July, under the supervision of Miss Louise Winsor Brooks, with very satisfactory results. The hope that after this course of training young persons on leaving the Horace Mann School, or soon after, may begin work as wage-earners, prompted Miss Brooks to assume the responsibility of this plan for the industrial education of deaf girls and boys.

Walter S. Parker,
Assistant Superintendent.

SARAH FULLER HOME FOR LITTLE DEAF CHILDREN, MEDFORD.

Eliza L. Clark, Matron and Principal.

Twenty-first Annual Report, June, 1909.

If twenty-one years mark the manhood and civic maturity of a citizen, what shall we say of the Sarah Fuller Home, which has passed through twenty-one years of tentative effort, of growth and of broadening of mind and scope, and to-day demands a full-grown recognition of its place, in the democracy of philanthropies?

An absolute monarchy, whose ten or more little subjects think it a republic, it has sheltered and opened the door of a world life to black and white, to American, English, French, German, Italian, Dutch, Swedish, Canadian, Russian Jew and Pole, — in all 101, — who mingle as one family, who, by respecting others' rights, insure their own. They are led, not driven, to obedience. Punishment is the deprivation of the privilege one has abused; the golden rule, their creed.

The principle of entire justice and equality, being the fundamental law of daily life in all their relations, gives a steadiness and poise to these growing characters which is of untold value. We are very proud of the mental awakening we bring, we may be prouder of the moral guiding that reaches these repressed but often intense natures starting their world pilgrimage. With the small number of our children, 16 in the course of this year, there is constant study of each individual's needs, his natural lines of interest, and the side on which he is most open to suggestion for original or imitative work. This makes a gain in time and in effective result while keeping the interest alive.

Welcomed by every other as a new delight, a child from two and a half to five years old comes to us who has necessarily been outside of the family discipline, its work and its play, and finds a world made for himself, of which he is the center, — playthings and games and other children of his own sort leading the happiest family life, in which each holds a place, with older people devoting themselves solely to opening new paths of absorbing interest. Is it any wonder that little hot and misunderstood tempers cool down, that the country peace and regular life still the vibrating nerves that have stretched vainly toward companionship?

Yet in this home life great results follow our training. In visits received from normal children of like age we have always found ours in advance in writing, reading and kindergarten work. As they have fewer distractions, their gain along the lines of their interest is rapid. This has even been helped by the use of the annex as a schoolroom only, the very associations of the place proving a stimulus. To this they go with eagerness, school work being a joy, not a task. Here is the piano, and the children, leaning arms upon its frame, feel and respond to the chord struck by the teacher, relaxing the throat and without effort making a more natural tone. This can be raised or lowered, made loud or subdued, by a like touch on the keys.

A sense of vibration is also cultivated through their recognizing the different thrill of the several guitar strings.

There can be no dry, dull teaching where everything must be shown and wrought into the child's understanding. The table service, the daily dressing, the walks, the games, all are made to render full value as lessons. In class the little circle around the low table is busy with kindergarten work, drawing or writing, something that holds attention and demands care, while one and another goes to the teacher for articulation, for reading or writing the blackboard lesson, getting a new word and fitting it into place with others, like one piece of a picture puzzle, till our children of about six years have a vocabulary of over two hundred words.

Nouns are shown as objects or the pictures of them; verbs are acted out; prepositions visibly prove their use; while spelling, that bane of childhood, is eliminated by the introduction to words whole, not disintegrated. . . .

Study and play alternate. There is a sand garden, grass and open fields, and an arbor as playhouse. As the day wanes the children are brought in from play, and quiet games prepare them for the simple supper and sleep that close one happy day and lead in the next.

A physician and a dentist of our city have for years given their care freely to the pupils, for which we feel and wish here to express deep thanks. Our average of health is high, though many children come to us in poor physical condition.

Towards Miss Clark, the matron since our beginning, the children feel warmest love, which endures beyond their pupilage. Besides her wise direction there has been a devotion of motherhood which has won all little hearts, and been appreciated by their parents. Our success is greatly due to her personality. Miss Aymar and Miss Morrison with skill and tenderness fill important places in the home, and the whole staff labors with unity of feeling.

Entrance to the Horace Mann School of Boston finds our graduates often much in advance of others of their own age who have not had early training. The criticism has been sometimes made of them there that, with unusual alertness and readiness to use and understand speech, they demand too much, too constant information, and, lacking it through school limitations, become restless. But can we count that a fault? Though inconvenient and undoubtedly the result of previous individual care, is it not the eager pressing forward to the goal they strive so hard to reach, and only a misfortune that their demand cannot be met? . . .

To most of our friends our work is a revelation of the possibility of reaching and developing the very young deaf, and its advantages are highly estimated.

We look back on our twenty-one years of pioneer work as not ashamed, and forward with courage. We have reasonably fulfilled Mrs. Francis Brook's high hope in this foundation, and justified our demand for continuous support by the public. Our care and our labors we offer to the State as the duty of her children to her future citizens.

MARY H. HAYES.

JUNE 7, 1909.

NEW ENGLAND INDUSTRIAL SCHOOL FOR DEAF MUTES.

MISS MARTHA O. BOCKÉE, SUPERINTENDENT.

TWENTY-NINTH ANNUAL REPORT OF THE TRUSTEES.

The affairs of the school have continued during the past year without any changes which affected the work as a whole, although there have been a number of changes in incidental matters.

On account of illness Mrs. Persis S. Bowden was obliged during the month of December to discontinue her teaching, and her retirement will probably be permanent. She has been connected with the school since its incorporation in March, 1879, and during these thirty years she has given herself to its interests with constant and faithful devotion. Her father, Mr. William B. Swett, was the prime mover in the beginnings of the school; and Mrs. Bowden, with her sister, Miss Swett, were its strongest supporters during the years when support was most needed. Another change in the teaching force has been made by the succession of Miss Davis to the position formerly held by Miss Mutch. Miss Davis is new to our school, but she has had excellent training for this work, and the trustees feel that she promises to become a valuable addition to the teaching staff.

During the last year the school has lost a warm friend by the death of Miss Frances E. Wells. Miss Wells had been able to give more of her time and personal attention to the teachers and pupils of the school than had been possible for many of the other trustees, and it is precisely this sort of assistance that is of greatest benefit to the school. She had been of great help in many matters, and her place will be a difficult one to fill.

During the year a change has been made in the matter of solicitation of financial support. In Brookline, Boston and Beverly this has been done by means of a circular letter instead of a personal call by a solicitor representing the school. It was felt that a change would be agreeable to our friends, and we believe that it will prove a gain to the school. For the present year the results were almost exactly the same as under the former system. Miss E. Estelle Davis of Worcester, Mass., is now our only authorized solicitor, she having taken the place of Mrs. Fielder (now Mrs. Bickford), who resigned.

In the month of December we received the legacy of $50,000 left the school by the late Mrs. Julia Marsh. By the terms of the will we can use only the income from this bequest; but this addition to our resources will assist us most materially in the matter of current expenses, and also in making certain improvements which have long been needed. There will still be many matters of a really pressing nature upon which money must be expended soon, and we shall have many advantageous uses for a greater income than is now in prospect. We have always been at some disadvantage as compared with other schools in regard to buildings and general educational equipment, and we have been obliged to omit many features which modern education finds to be necessary for an institution such as ours. The income from this fund will, however, help very much to put the school in the position it is entitled to take. Our buildings have been recently painted and other minor changes made. We hope soon to go further in this direction.

We take this occasion to extend our thanks to all those who have in various ways shown their interest in the institution. Our assistance comes from so many different hands that it is not always possible to make due recognition, and we are glad of this opportunity to express our gratitude to our many friends. We wish particularly to extend our thanks to the committee from the Legislature for its interest in the affairs of the school.

Respectfully submitted,

DUDLEY L. PICKMAN,
President.

Extract from the Annual Report of the Principal of the School, Dec. 31, 1909.

There have been 28 pupils under instruction during the year. In order to have these pupils properly graded there was need of many small classes, and the results thus obtained have been gratifying. There has been marked improvement in the work in the class rooms, and we feel that we have had a successful year.

Miss Daisy Davis, from the Morganton School, North Carolina, came to us in September and has charge of an oral class of particularly bright children.

Mrs. Persis S. Bowden, who has been connected with the school for thirty years, first as matron, then as teacher, found it necessary at the close of the year to give up her work on account of ill health. She will be affectionately remembered by all those who have attended the school, and by the pupils and teachers now here. Her class will be in charge of her daughter, Miss Helena Bowden, until the close of the school year in June.

For some time we have felt the need of systematic gymnastics for our pupils. In September classes were formed, and Miss Mildred Sturdevant has given each class daily instruction in the class rooms. When it is possible to secure a room suitably equipped apparatus work will be given.

For the industrial training of the girls, classes in sewing are held four times a week, with instruction by a trained teacher. The ironing class meets once a week, and the girls assist in the work of the house, thus gaining a knowledge of housekeeping. The work is light but practical, and gives a training which every girl needs.

The classes in sloyd have made satisfactory progress. With the training received here a boy who left school in June at once secured a good position in a cabinet shop.

Forty chairs have been reseated by the younger boys. Shoe repairing was carried on throughout the year. Numerous improvements were made about the buildings by the older boys. The wall paper was taken off the halls, the walls tinted, and a hard pine sheathing put through halls and stairways.

Material for a much-needed porch was furnished by Miss A. M. Kilham, the work being done by three of the older boys, under the direction of a carpenter. This not only adds to the appearance of the house, but is a great protection in winter and summer.

These improvements, with the painting of the house, put the building in better condition than it has been for some time. The addition of a modern laundry stove has greatly increased the convenience and efficiency of that department.

THE BOSTON SCHOOL FOR THE DEAF, RANDOLPH.

Thomas Magennis, Superintendent.

From the Report of the Superintendent.

The Boston School for the Deaf has finished its tenth year. It began with 4 pupils in 1899, as stated in its first annual report, and has to-day on its register the names of 120 pupils, all of them wards of the State. The number of teachers has been increased from 4 in 1899 to 14 in 1909. The school is located in a large and thoroughly equipped building at Randolph, Mass., where its work has been and is done in a very satisfactory manner. The agent of the State Board of Education who has officially visited the school several times each year since its establishment is surely the one best able to give an opinion regarding it. He assures the teachers of the school that their work is commendable and that the progress of the pupils in their studies is very satisfactory. His valuable suggestions on the occasion of his visits to the school were of great help to the teachers, were very thankfully received and assiduously put into execution. His visits to this school have always been welcome and his criticism of our work highly esteemed.

The children under our care are all strong, hearty and healthy. No illness occurred during the year that did not respond promptly to medical treatment. A period of forty weeks of school life in the country accounts for the remarkably good health of the pupils. The farm belonging to the school furnishes an abundant supply of fresh vegetables and helps very much to maintain a high standard of health. An abundance of good food, frequent baths, gymnastic exercises, many acres of ground at the disposal of the pupils for recreation, together with the prompt and skillful attention of the physician, Dr. George V. Higgins of Randolph, the otologist, Dr. T. J. Reardon of Boston, and the oculist, Dr. William Madden of Boston, make it possible to send the children home to their parents in June for vacation in a much better physical condition than when they came to school at the beginning of the school year in September.

One of the advantages of having our school in the country rather than in the city is that we are able to have a farm and garden. . . .

Teachers of deaf children are engaged in a noble work. Their cause is a holy one in so far as it brings relief to the afflicted in the only way in which they can be helped. To make life happier for them; to teach them to bear with patience their affliction; to teach them to forget that they differ in any way from other children, as far as enjoyment of life is concerned; to open to them, so as to understand and enjoy, the otherwise sealed treasures of science, art and literature; to give them a means to become familiar with current events; to make them conversant with all that the world offers to those who speak and hear; to germinate in them the fruit of knowledge hitherto dormant; in a word, to make them glad to live, glad to know and practice virtue, always progressive, adding to the sense of living much of that which makes life worth the living, — this is the consolation and the reward of the teachers of deaf children. . . .

During the year the pupils gave two entertainments, consisting of drills, marches, dances, tableaux and military tactics, and won great applause.

In September, 1908, the number of pupils on roll was 114. During the year 1908–09 8 pupils were admitted, making a total of 122; 2 pupils were discharged, 1 boy to go to work and 1 girl whose parents moved out of the State. This left the number of pupils on roll at the close of school, June 16, 1909, 120.

During the year we had the following cases of illness: —

Appendicitis,	2
Tonsillitis,	4
Pneumonia,	1

In June we had a mild epidemic of measles (17 cases). All recovered speedily.

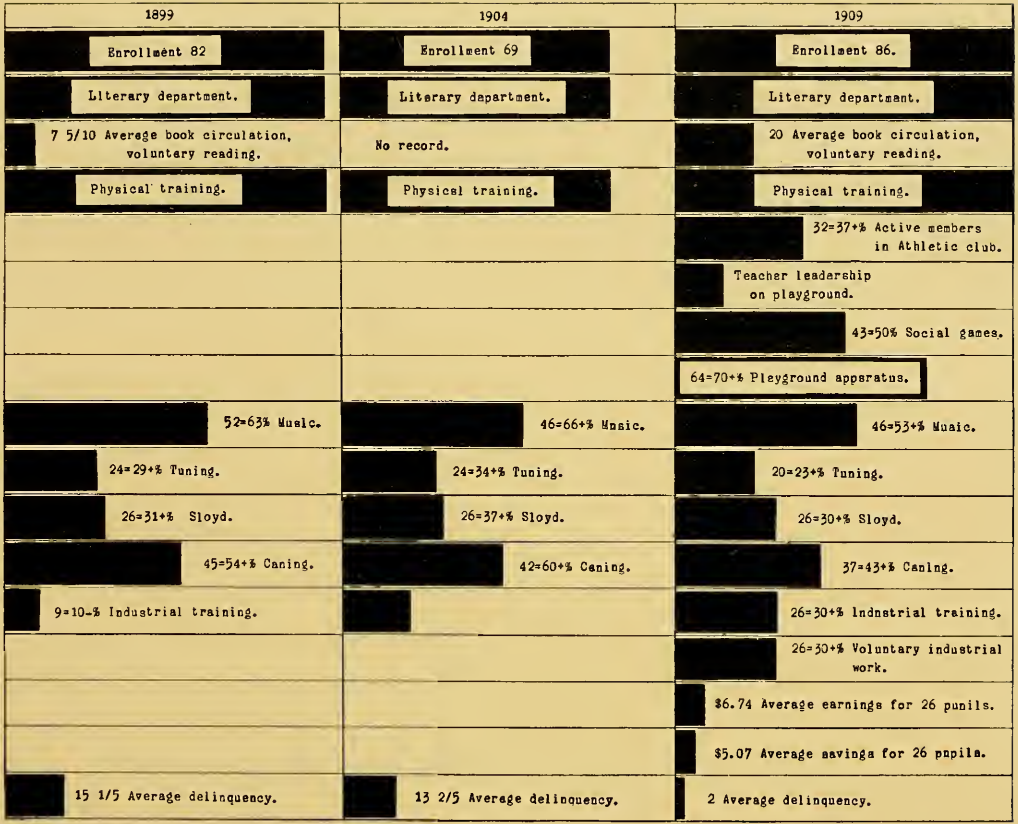
School reopens the second Monday of September, 1909, and will close the third Wednesday of June, 1910.

PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND.

Edward E. Allen, Director.

Report of the Director.

The trustees of Perkins Institution sent the director to Europe last spring, that he might study foreign institutions for the blind with special regard to ideas which might modify the plans of the new buildings of the school. He observed the principal institutions of England and Scotland, of Germany and Austria, and of the city of Paris, and noted that the tendency to-day, there as here, is away from the crowded city location to the more open suburban one. He noted, too, that the Germans particularly are gradually substituting for the old congregate of block building the cottage, or, as they term it, the pavilion plan of institution housing. This means a change in the usual artificial separation of the pupils by sex, age and occupation, but a retention of the old plan of congregate kitchen and dining room. Now, the cottage system inaugurated here in Boston by Dr. Howe over forty years ago, and continued by Mr. Anagnos at Jamaica Plain, is much more truly the family grouping than this pavilion plan of the Germans, and as conducted here is not more expensive than if run with fewer kitchens and cooks. But, even if it were, its results are so superior as to be truly economical in the end. Director Allen



PERKINS INSTITUTION, BOYS' DEPARTMENT, SOUTH BOSTON. — A chart showing the introduction and growth of various lines of school activity, with its consequent influence upon delinquency.

has therefore recommended embodying Dr. Howe's family plan for all the pupils who shall attend the reconstructed institution at Watertown.

While this study of European institutions for the blind has not modified the buildings which the trustees propose to erect, it has given the director a chance to compare European with American methods of educating the blind, and to cause him to persevere with the new world working theory, whose results abundantly justify the wholesome view that blindness does not necessarily preclude the possibility of life efficiency. In the old world competition among all the poor is so great that the blind have little chance, and in most countries they are not expected to get on without augmentation, — systematic help of one kind and another. They are taught to work at a trade and to be truly productive, but are always looked after and helped, the institution standing *in loco parentis.*

In school instruction, however, the Europeans, especially on the continent, are extremely good and thorough. In Germany and Austria this schooling of the blind practically stops with their fourteenth year of age, after which they enter the trade school of the institution and apply themselves to the special occupation they expect to follow. This trade department is usually much the larger section of the institution; and the main emphasis of the preliminary schooling and training, from the kindergarten up, is towards perfecting the hand to serve as a tool. American blind school men can learn many lessons from the experiences of Europe; and it is expected that the institution will benefit much from this tour of its director.

The year has been a prosperous one. An excellent spirit prevails in all departments. The chart on facing page, prepared by one of the instructors at the institution, shows a comparison of some of the activities of the boys' department at South Boston and demonstrates clearly how wholesome the life there has been, increasing activities producing decreasing delinquencies.

At the beginning of the present school year, Oct. 1, 1909, there were 315 blind persons registered with the Perkins Institution, which is 12 less than at the same date of the previous year. This number may be divided as follows: —

Pupils in the boys' department,	82
Pupils in the girls' department,	79
Children in the kindergarten,	120
Teachers, officers and other employees,	12
Adults in the workshop,	22

Beneficiaries of Massachusetts: —

At the beginning of the year (Oct. 1, 1908),	191
Admitted during the year,	31
Discharged during the year,	38
At the present time,	184

INSTRUCTION OF THE ADULT BLIND AT THEIR HOMES.

From the Report of the Trustees.

To the State Board of Education.

The same four teachers who have carried on the work of instructing the adult blind in their homes, almost from its beginning in Massachusetts, have continued it this past year. There has been little change; but the work itself is a compelling form of service. The teachers are continually stimulated by the good they are able to do; so that what might ordinarily become routine employment is lifted and maintained on an inspirational plane by the natural sympathy existing between pupil and teacher, both of whom are blind. It is saved from drudgery by the opportunity of personal service. In fact, the opportunities for helpful social service are so great in connection with this work of home teaching that no one is fitted to do it unless she has the sympathy and wisdom for social work too. . . .

Having once broken the ice with a new pupil the teacher usually reads something aloud with her fingers, then encourages the pupil to learn. The older and less courageous are started with Moon's type; the more vigorous with Braille's. Both types are needed and probably always will be. There is much printed in each form. Sometimes the learning to read takes months, sometimes only days. An ambitious reader of Moon soon craves a less cumbrous alphabet and is given Braille. He is told of the rich stores of enjoyment and solace ahead for him, and that he has but to ask at some library keeping embossed books and the kind of reading he wants will be sent free of expense to him. The library of the Perkins Institution contains 1,190 different books, — altogether some 16,000 volumes. So many calls come for these that the whole time of one librarian is given to the circulation department. Last year 4,507 books were mailed to our outside readers, who now number 872, — an increase this year of 155. Many of them were or still are the pupils of the home teachers.

The Braille is a finer and more closely printed type than the Moon; but experienced readers prefer Braille, and the more experienced they are the smaller and closer they like it, within reason, as this quality facilitates speed. In order to render the transition from Moon to Braille easier there has been issued this year a Braille story, printed in large gauge and with wide line spaces, and another with gradually diminishing line spaces. By this means the ability to read the regular print is sometimes gained unconsciously; whereas, without such helps, the finger would often go astray among the lines and the courage to learn to read be lost, — a thing which has too often happened.

Excellent as is the variety of books in these embossed types, the Braille has been enriched these past two years from our own Howe Memorial Press with a special view to feeding the hunger of adult readers. Some 80 select short stories have been printed, of which from 12 to 20 copies have been put into circulation. It is the publication of these and the extensive advertising of the fact that they could be borrowed for the asking which has so increased the usefulness of our collection of embossed books. "There is no frigate like a book to waft us leagues away."

The thing which home teachers first strive to do, then, is to give reading to their pupils. Reading by means of the finger seems to most people a wonderful achievement, and so it does to the blind adult who has accomplished it. Thus, reading does more than provide a resource; it becomes a mental tonic. He who can read is no longer the poor invalid he was before; both he and his friends have taken courage. Next he insists on doing little things for himself and then various chores about the house and yard. When the home teacher visits him now she finds her pupil mentally receptive. She tells him of what blind people have done and are doing every day, and so fires him to do everything that he can do. To make her pupils believe in themselves again, and to make their household believe in them also, is after all the chief mission of the home teacher. They now crave other occupation, and very naturally ask what they can do to earn. Here the teacher can and does give lessons in the simple home occupations, such as knitting, crocheting, chair caning; or she can draw upon her resources for suggestion. She can tell of selling papers, or candy and peanuts, and the like; or of keeping poultry for profit; or of some occupation not too different from what the individual did before losing his sight. Where the blindness does not accompany other physical ills or old age a certain return to efficiency is often attained; but, in general, this is not to be measured so much in dollars and cents as in a real restoration to life worth living.

The districting of the State, mentioned last year, has worked well, enabling us to do an unusual amount of teaching. But now that the Massachusetts Commission for the Blind also does work in the field, at the homes of the adult blind, it is evident that by a union of home teaching with their work both could be done with less overlapping, with less loss of time and money in travel, with more system, and therefore with more economy to the State. Realizing this the management of the Perkins Institution and that of the Massachusetts Commission for the Blind made a joint effort to have the necessary legislative steps taken for turning this work over to the commission, where it naturally belongs. However, the bill was not favorably reported; hence the direction of the State Home Teaching for the Adult Blind remains where it has been, with the Perkins Institution.

The names and addresses of the teachers are as follows: Miss Lillian R. Garside, No. 4 Burroughs Place, Boston; Miss Lydia Y. Hayes, Orleans; Mr. Edward Schuerer, No. 15 Warriner Avenue, Springfield; Mr. John Vars, No. 72 Huntington Avenue, Boston.

Statistics. — Number of new cases of blind persons visited, 98; number taught, 90; number refusing instruction, 8; number enrolled Nov. 1, 1909, 130. Amount of money earned by the pupils, $433.61. Summary of work done by the teachers: calls made, 966; lessons given, 2,216; miles traveled, 33,958.

THE MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED, WALTHAM.

Walter E. Fernald, M.D., Superintendent.

Extracts from the Superintendent's Report for year ending Nov. 30, 1909.

	Males.	Females.	Totals.
Number present Nov. 30, 1908, ...	759	552	1,311
Admitted during the year, ...	156	99	255
School cases, ...	72	30	102
Custodial cases, ...	84	69	153
Whole number of cases during the year, .	915	651	1,566
Discharged during the year, ...	86	63	149
Died during the year, ...	22	12	34
Number present Nov. 30, 1909, ...	807	576	1,383
State patients, ...	765	544	1,309
Private patients, ...	23	16	39
New England beneficiaries, ...	19	16	35
Daily average number of patients, . .	789	572	1,361
Number Nov. 30, 1909, at school, . .	625	576	1,201
Number present Nov. 30, 1909, at colony, .	182	–	182
Applications during the year, ...	–	–	471

. . . .

I am happy to report a satisfactory year's work in every department of the school. The school and training classes have never been so well organized, and the school instruction has never been so well co-ordinated with the other educational influences.

The manual and industrial training, described in detail in the last report, has been still further developed. Over 600 pupils now receive daily training in the attractive manual building. With the eager classes following each other all day long, the building is a veritable hive of happy industry. The pupils are very fond of the varied manual training exercises.

All of the manual training work is applied to the production of articles which are useful and which the children afterwards see in use. The following activities and industries are successfully carried on in the manual training building: —

For Boys.

- Weaving crash, etc.
- Shoe repairing.
- Painting.
- Carpenter work.
- Wood turning.
- Furniture repairing.
- Cane seating.
- Broom making.
- Brush making.
- Net making.
- Coir mat weaving.
- Printing.
- Sloyd.

For Girls.

- Cooking and training in domestic work.
- Primary hand sewing.
- Machine sewing.
- Weaving crash, linen, rag carpets, etc.
- Cutting rags for rag carpets.
- Spinning.
- Machine knitting of caps, mittens, etc.
- Braiding rugs.
- Hooking rugs.
- Lace making.
- Basketry.
- Hand knitting.
- Crocheting.
- Net making.
- Embroidery and fancy work.
- Jig sawing.
- Sewing clothing, bedding, etc.

In the summer time the indoor manual classes for the boys are suspended and instructors take the boys out of doors to apply their manual skill in work on the land. Boys of suitable age and strength are taught to weed, to hoe, to drive a horse, to handle stone and gravel, ashes and coal, to dig stones, to lay down lawns, to build roads, dig drains, and finally, to harvest and store the apples, vegetables and other crops.

With boys of very feeble mentality this outdoor manual instruction forms a very important part of their education. During the summer we had two or three men employed all the time with these classes. Each class was made up of 10 or 12 boys, and the classes changed every hour. These boys were taught to use shovels, pickaxes, to handle cord wood, to saw fire wood, etc. This work is carried on with all the precision of an indoor school class, and the results are most obvious in improved physical health and increased mental ability. This work is especially effective in the way of quieting noisy, excitable patients. The work done by these classes has been on some of the rough land which we have not yet brought under cultivation. It would be difficult to overestimate the value of this sort of training for the above class of patients.

In estimating the average population of the school it has always been the custom to count as present those patients who were at home on vacation. It is right and proper that those of our pupils who have good homes should be allowed to make longer or shorter visits to those homes during the summer vacation. Only a few go at one time from any one ward or building. The absence of these patients does not allow us to reduce the number of employees, and the expense of running the institution is not diminished by their absence, except in a very small way, in the amount of food consumed. As a matter of fact, the amount of food served cannot be reduced proportionately for these irregular temporary absences.

The current expenditures for the year were $256,255.44, or $3.61 per capita, with a daily average of 1,361 patients, reckoned as in years past.

If the average number of patients is figured on the actual number present in each house each day of the year, the average for the year would be 1,281, and the weekly per capita cost would be $3.83. . . .

We have had another successful year at the farm colony at Templeton. The boys continue in good health and are contented and happy. During the year they have cleared 27 acres of wild land ready for tillage. We have 140 acres of land under cultivation.

Our crops were remarkably good. The following products were harvested: —

1,124 barrels apples.
1,373 bushels beets.
54,396 pounds cabbage.
1,660 bushels carrots.
302 bushels green corn.
545 tons corn, ensilage.
147 tons corn, etc., for fodder.
110 boxes cucumbers.
194 boxes lettuce.
498 bushels onions.
8,059 bushels potatoes.
17,029 pounds pumpkin.
2,948 pounds rhubarb.
20 tons squash, winter.
94 barrels squash, summer.
92 bushels tomatoes, ripe.
120 bushels tomatoes, green.
768 barrels turnips.

Thirteen carloads of food products were shipped to Waverley for use at the home school. In addition, 1,600 bushels of potatoes and 400 bushels of other vegetables were sold to other State institutions.

This work is practically all the result of the work of the boys themselves, for we should need our present number of employees at the colony merely to take care of the boys if they were kept in idleness. . . .

THE MASSACHUSETTS HOSPITAL SCHOOL.

JOHN E. FISH, SUPERINTENDENT.

EXTRACTS FROM THE REPORT OF THE TRUSTEES.

The trustees are able to report an additional year of successful conduct of the institution. As will be remembered, the original grant of the State was for the establishment of an institution for the care, treatment and education of 300 crippled and deformed children. Two years ago buildings were completed for the immediate care of 150 children, with plans for future enlargement to accommodate the full complement as the number of applications for admission increased. It is especially gratifying that since the opening of the institution the number of applications has increased to such an extent that, although the school has been in operation but a short time, it is now necessary to add to the number of buildings, and it is expected that soon provision will be made for the full number, — 300. . . .

The increasing number of applicants for admission since the institution has been opened is sufficient evidence not only of the need of an institution of the sort but of the success of its management.

The trustees are able to report a remarkable condition of good health among the children during the past year, with great improvement in the physical condition of all. In some instances there has been restoration to nearly normal conditions, where previous treatment and care, without the aid of the best environment, had proved of little assistance. Fresh air and the excellence of the care and of the surroundings have made the measures of cure undertaken more successful than similar methods of treatment under less favorable conditions.

The health of the children has not only been excellent, but it has been better than that ordinarily existing in the average private home. This health record has been made possible by the exercise of care as to diet, the regulation of the daily life of the children, the excellent situation of the institution, and by the provision for all the children for absolute outdoor life, the encouragement of outdoor play, and by such arrangements in the dormitories as provide for absolutely fresh air, by night as well as by day. . . .

The problem of education of the children in the hospital school is a somewhat complex one. The children placed in the school are suffering from different degrees of disability. Some are absolutely illiterate, although they may be of an age and from homes in which reading and writing with proficiency are to be expected. Others have received some education, but are without adequate discipline as to the necessary concentration and ability to work which are required in a school curriculum. In a few the mental processes are torpid from the years of suffering and disability and the necessary deprivation of the ordinary mental stimulus of childhood, while others have an unusual mental acuteness, which needs direction and training. In some the physical condition of the child is such that but little instruction is advisable, while in others, although the health may be excellent, the physical disabilities have prevented proper education merely from the patient's inability to walk to places of instruction.

The plan adopted at the hospital school is to give to all the children the necessary elementary instruction, classifying as far as possible such cases as can stand a proper amount of instruction, as well as those in which but little school discipline can be borne, furnishing to the latter the best hospital care and nursing.

In addition to the ordinary school work, attention is paid to the development of the physique by outdoor sports and exercise, as well as by an almost fresh-air and outdoor life. With unusually good facilities for an abundance of fresh air at all times, night as well as day, the children under protection are given practically an out-of-door existence day and night.

For educational purposes the children are, in addition to the ordinary school work, given opportunity to progress from manual training to light, practical, applied work of a lighter sort, — carpentering, sewing, gardening, etc. An excellent garden for the raising of vegetables and flowers has, during the past spring, summer and early autumn, been placed under the care of the children. From both the health and educational points of view there have been beneficial results.

In addition to these methods of instruction, which are of proved value in other educational institutions, the hospital school needs also special vocational training of a thoroughly developed character. The demands in this direction have not been urgent at the institution during the first two years of its existence, but it is evident that if the work of the institution is carried out successfully, as the children are to be graduated, there will be a need of some arrangement for the suitable establishment of crippled children in bread-winning occupations. There should be special vocational training, suited both to the special physical condition of the children and their particular defects, and adapted to the labor demand in the State for work of this class. Children who are maimed are rarely able to obtain bread-winning occupations by their own efforts, as they are handicapped by their disabilities. If, however, an agency exists which will be responsible for skilled labor suited to certain classes of work, and equipped to furnish such, adapted to the labor demand of a varied market, not only will cripples be helped, but special lines of industry with their particular needs will be furnished, with specially trained help. . . .

Extract from the Report of the Superintendent.

There were in the institution at the close of the year (Nov. 30, 1909) 140 children, — 90 boys and 50 girls. There were at the beginning of the year 87, — 60 boys and 27 girls. There have been 87 new admissions, — 54 boys, 33 girls and 1 boy returned from visit of 1908. The whole number under treatment during the year was, therefore, 175. Thirty-one children were discharged, of whom 21 were boys and 10 girls. Two boys are out on visits and 2 boys have died. The maximum number at any one time was 140, the minimum 86 and the daily average number 117.59. The support of the children remaining at the close of the year was as follows: 2 private, 18 State minor wards, 49 State, 71 town or city.

APPENDIX F.

COUNTY TRAINING SCHOOLS.

COUNTY TRAINING SCHOOLS.

There are at present 6 county training schools, for the commitment of habitual truants, absentees and school offenders. These schools are located as follows: —

County training schools.	Location.	Superintendent.
Essex, ...	Lawrence, . .	W. Grant Fancher.
Hampden, ...	Springfield, . .	Erwin G. Ward.
Middlesex, ...	North Chelmsford,	M. A. Warren.
Norfolk, Bristol and Plymouth,	Walpole, . . .	James H. Craig.
Suffolk[1] (Boston Parental), .	West Roxbury, .	D. P. Dame.
Worcester, ...	Oakdale, . . .	Stephen P. Streeter.

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[1] Under the law commitments from Chelsea, Revere and Winthrop in Suffolk County must be to the training school for the county of Middlesex.

The counties of Barnstable, Berkshire, Dukes, Franklin, Hampshire and Nantucket are exempted by law from maintaining training schools of their own, but the county commissioners of each of these counties are required to assign an established training school as a place of commitment for habitual truants, absentees and school offenders. The places designated by the several commissioners are as follows: —

County.	Location of assigned training school.	County.	Location of assigned training school.
Barnstable, . .	Walpole.	Franklin, . .	North Chelmsford.
Berkshire, . .	Springfield.	Hampshire, .	North Chelmsford.
Dukes, . . .	Walpole.	Nantucket, .	–

Table showing the number of pupils attending, admitted and discharged during the school year, 1908–09.

COUNTY TRAINING SCHOOL.	Number at beginning of year.	Number admitted during the year.	Number discharged during the year.	Number at close of the year.
Essex, ...	140	51	40	151
Hampden, ...	29	20	22	27
Middlesex, ...	176	64	63	177
Norfolk, Bristol and Plymouth, .	58	45	35	68
Suffolk (Boston Parental), . .	222	148	192	178
Worcester, ...	51	32	26	57
Totals, ...	676	360	378	658

AN ABSTRACT

OF THE

SCHOOL RETURNS MADE BY THE SCHOOL COMMITTEES
OF THE SEVERAL TOWNS AND CITIES IN
THE COMMONWEALTH

FOR

THE SCHOOL YEAR, 1908–1909.

BARNSTABLE COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1908.	No. of public schools.	School Census Data Sept. 1, 1908.		School Membership, Attendance and Graduation Data for the School Year.							
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.	No. graduated from grammar schools.
Barnstable, . .	4,336	$5,692,885	23	661	488	800	–	138	512	721	661	.92	57
Bourne, . .	1,786	3,391,500	11	312	239	343	–	49	217	286	265	.93	12
Brewster, . .	739	526,585	4	111	70	95	–	14	61	87	82	.94	8
Chatham, . .	1,634	1,147,525	9	244	173	267	–	47	173	247	224	.91	20
Dennis, . .	1,998	1,189,680	13	238	190	338	–	69	188	304	286	.95	24
Eastham, . .	519	347,711	2	69	50	78	1	2	55	64	57	.88	6
Falmouth, . .	3,241	8,002,501	18	505	390	633	32	78	388	584	563	.96	31
Harwich, . .	2,291	1,186,519	12	371	285	364	–	44	271	320	292	.91	22
Mashpee, . .	317	200,540	2	51	36	46	–	2	33	38	35	.92	5
Orleans, . .	1,052	614,185	4	174	137	211	–	31	124	192	171	.88	10
Provincetown, .	4,362	2,066,450	20	853	591	997	1	89	673	950	893	.94	37
Sandwich, . .	1,433	1,000,250	8	271	198	258	–	31	186	230	215	.93	21
Truro, . . .	743	386,795	5	155	115	157	–	8	115	142	131	.92	3
Wellfleet, . .	958	980,955	5	142	100	145	–	11	100	132	118	.89	10
Yarmouth, . .	1,422	2,029,911	9	172	135	208	–	32	131	190	178	.94	17
Totals, . .	26,831	$28,763,992	145	4,329	3,197	4,940	34	645	3,227	4,487	4,171	.93	283

BERKSHIRE COUNTY.

Adams, . .	12,486	$6,073,145	43	2,354	1,671	1,828	19	139	1,291	1,623	1,552	.95	54
Alford, . .	275	171,101	3	48	34	56	–	2	43	44	37	.83	3
Becket, . .	890	485,075	7	174	134	192	1	2	135	146	131	.90	11
Cheshire, . .	1,281	749,664	8	258	171	235	–	3	171	212	198	.93	10
Clarksburg, . .	1,200	260,390	6	250	171	224	1	3	178	193	165	.86	4
Dalton, . .	3,122	3,504,705	17	644	499	706	–	47	441	626	589	.94	29
Egremont, . .	721	468,415	4	104	79	101	–	3	81	87	79	.90	5
Florida, . .	424	174,944	5	99	79	99	–	4	80	85	78	.92	–
Great Barrington, .	6,152	5,637,515	31	954	752	1,163	3	93	750	1,050	960	.91	62
Hancock, . .	434	297,145	6	77	68	107	2	4	78	77	66	.86	–
Hinsdale, . .	1,452	579,303	9	246	183	248	3	–	194	215	192	.89	12
Lanesborough, .	845	508,987	5	146	102	140	2	2	109	120	105	.88	7
Lee, . . .	3,972	2,001,163	15	734	523	655	31	83	418	603	550	.91	15
Lenox, . . .	3,058	5,401,488	21	603	455	687	6	92	469	622	588	.90	37
Monterey, . .	444	304,851	4	80	60	90	–	6	72	73	49	.67	–
Mount Washington,	87	83,734	2	16	9	16	–	1	10	12	10	.88	1
New Ashford, .	100	50,605	1	18	14	20	–	2	14	14	13	.90	–
New Marlborough, .	1,209	694,270	12	192	136	218	–	23	162	173	156	.90	12
North Adams, .	22,150	16,360,648	77	4,479	3,150	3,420	193	303	2,092	3,004	2,748	.92	135
Otis, . . .	534	244,081	5	72	61	98	–	–	82	86	79	.92	–
Peru, . . .	268	133,835	5	55	52	55	–	1	51	49	43	.87	3
Pittsfield, . .	25,001	21,799,250	113	4,707	3,431	4,747	143	478	3,194	4,272	3,971	.93	164
Richmond, . .	601	354,403	6	102	67	75	1	2	51	66	60	.91	–
Sandisfield, . .	657	340,037	7	123	91	124	2	4	87	85	76	.89	–
Savoy, . . .	549	181,775	7	94	68	102	2	7	78	73	65	.89	1
Sheffield, . .	1,782	931,925	12	256	216	279	5	35	193	233	209	.89	11
Stockbridge, . .	2,022	4,149,831	11	388	284	379	1	29	254	344	316	.92	11
Tyringham, . .	314	258,507	4	69	50	65	1	–	53	46	40	.88	–
Washington, . .	339	277,813	5	55	50	66	–	–	58	45	38	.86	1
West Stockbridge, .	1,023	401,062	8	186	153	187	1	5	134	162	142	.90	6
Williamstown, .	4,425	3,278,265	25	786	540	868	–	90	642	776	728	.94	40
Windsor, . .	513	275,197	7	102	81	105	2	4	85	102	88	.87	1
Totals, . .	98,330	$76,433,129	491	18,471	13,434	17,355	419	1,467	11,750	15,318	14,121	.93	635

BARNSTABLE COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.						
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.												
Barnstable,	7	23	6	2	14	$87 00	$52 00	212–1	9–4	2	6	140	60	24	9–17 9–17	$8,898 82
Bourne,	3	10	3	–	7	80 11	47 04	90–1	8–5	1	3	51	13	9	9–1	4,674 35
Brewster,	1	3	1	–	2	85 00	43 00	36	9	1	1	17	5	3	9	1,078 25
Chatham,	1	10	3	–	3	100 00	36 50	81	9	1	3	68	16	7	9	2,160 00
Dennis,	3	10	1	–	7	70 00	45 00	117	9	2	2	75	26	14	9 9	1,654 00
Eastham,	–	2	–	–	2	–	50 00	19–10	9–15	–	–	–	–	–	–	–
Falmouth,	3	19	3	–	8	96 66	55 00	156–2	8–14	1	4	75	28	13	10	5,822 75
Harwich,	1	12	2	–	5	80 00	40 25	100–12	8–10	1	2	50	22	7	9–12	1,545 60
Mashpee,	–	2	–	–	1	–	46 00	16–16	8–8	–	–	–	–	–	–	–
Orleans,	1	6	3	1	1	90 00	44 00	36–2	9	1	3	60	15	10	9–15	1,981 00
Provincetown,	2	22	2	–	16	79 09	43 46	171–1	8–11	1	3	95	40	13	9–11	2,649 53
Sandwich,	1	10	–	–	6	68 57	47 44	67–14	8–13	1	3	31	15	5	9–6	2,289 09
Truro,	1	4	–	2	2	48 00	46 33	46–1	9–4	–	–	–	–	–	–	–
Wellfleet,	1	4	1	–	4	82 00	38 95	46–16	9–7	1	1	26	9	2	9–18	1,179 99
Yarmouth,	1	9	1	1	5	111 11	49 87	79–3	8–19	1	1	27	14	1	8–17	1,150 00
Totals,	26	146	26	6	83	$83 54	$46 67	1,275–19	8–15	14	32	715	263	108	9–8	$35,083 38

BERKSHIRE COUNTY — CONTINUED.

Adams, . .	4	49	6	–	31	$126 50	$53 62	404–13	9–8	1	7	159	68	21	9–11	$7,847 69
Alford, . .	–	3	–	1	–	–	32 67	29	9–13	–	–	–	–	–	–	–
Becket, . .	–	7	–	–	4	–	38 38	61–10	8–15	–	–	–	–	–	–	–
Cheshire, . .	–	8	–	–	4	–	40 50	73–16	9–5	–	–	–	–	–	–	–
Clarksburg, .	1	5	–	1	4	40 00	41 60	51–2	8–10	–	–	–	–	–	–	–
Dalton, . .	1	19	4	–	11	123 37	50 26	157–15	9–5	1	4	101	25	4	9–15	4,720 87
Egremont, . .	–	4	–	–	–	–	44 00	39	9–15	–	–	–	–	–	–	–
Florida, . .	1	4	–	–	3	40 00	36 50	41	8–4	–	–	–	–	–	–	–
Gt. Barrington, .	2	35	6	–	14	128 36	47 86	284–8	9–3	1	7	182	71	27	9–12	7,668 66
Hancock, . .	–	6	–	–	5	–	34 27	49–16	8–6	–	–	–	–	–	–	–
Hinsdale, . .	–	9	–	–	2	–	41 64	83–5	9–5	–	–	–	–	–	–	–
Lanesborough, .	–	5	–	1	2	–	48 87	43–19	8–16	–	–	–	–	–	–	–
Lee, . . .	1	19	4	–	11	159 15	50 72	136–13	9–2	1	4	83	21	13	9–15	4,500 00
Lenox, . .	1	22	3	–	17	125 00	49 70	184–15	8–16	1	3	51	39	12	9–10	3,169 47
Monterey, . .	1	3	–	–	2	44 00	34 33	33	8–5	–	–	–	–	–	–	–
Mt. Washington, .	–	2	–	–	3	–	40 83	19–4	9–12	–	–	–	–	–	–	–
New Ashford, .	–	1	–	1	–	–	65 85	9–15	9–15	–	–	–	–	–	–	–
New Marlborough,	1	12	2	–	1	63 16	31 17	106–3	8–17	1	2	24	21	–	9–11	1,272 44
North Adams, .	4	102	11	–	60	146 15	56 05	732–5	9–10	1	14	370	136	54	9–15	14,092 41
Otis, . . .	–	5	–	–	–	–	37 40	40	8	–	–	–	–	–	–	–
Peru, . . .	–	3	–	–	–	–	36 68	43–1	8–16	–	–	–	–	–	–	–
Pittsfield, . .	10	136	10	–	49	118 60	52 95	1,101–15	9–15	1	13	405	181	64	9–15	16,893 82
Richmond, .	–	6	–	–	1	–	35 66	53–4	8–18	–	–	–	–	–	–	–
Sandisfield, .	–	7	–	–	1	–	34 28	59	8–9	–	–	–	–	–	–	–
Savoy, . .	–	9	–	–	–	–	39 31	56	8	–	–	–	–	–	–	–
Sheffield, . .	1	12	2	–	2	80 00	35 27	108–17	9–1	1	2	41	12	13	9–9	1,603 36
Stockbridge, .	1	13	3	–	11	130 00	58 26	100–13	9–3	1	3	46	11	5	9–3	3,550 00
Tyringham, .	1	3	–	–	–	36 00	36 00	35	8–15	–	–	–	–	–	–	–
Washington, .	–	5	–	–	2	–	35 58	42–4	8–9	–	–	–	–	–	–	–
West Stockbridge,	3	5	–	1	–	41 33	38 99	73–13	9–4	–	–	–	–	–	–	–
Williamstown, .	5	27	4	1	9	95 00	44 00	225–14	9–1	1	4	104	31	13	9–6	4,592 68
Windsor, . .	1	6	–	–	–	36 00	34 56	57–15	8–5	–	–	–	–	–	–	–
Totals, .	39	552	55	6	249	$102 79	$49 02	4,537–15	9–4	11	63	1,566	616	226	9–11	$69,911 40

BARNSTABLE COUNTY — Continued.

TOWNS AND CITIES.	Expenditures for the Support of Public Schools.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Barnstable, .	$19,339 53	$4,050 60	$4,129 19	–	$1,616 62	$1,642 78	$584 65	$31,363 37	$2,888 46	$28,474 91
Bourne, . .	6,719 97	1,917 06	2,584 77	$98 00	675 00	692 82	679 39	13,367 01	580 50	12,786 51
Brewster, . .	2,176 23	1,009 00	228 55	110 00	253 58	178 71	30 50	3,986 57	1,211 11	2,775 46
Chatham, . .	4,141 18	183 40	921 86	250 00	527 76	458 22	486 20	6,968 62	1,646 66	5,321 96
Dennis, . .	5,536 75	–	846 08	110 00	812 50	439 76	178 98	7,924 07	1,540 49	6,383 58
Eastham, . .	1,484 70	1,537 30	246 48	–	117 32	140 11	58 32	3,584 23	2,431 16	1,153 07
Falmouth, . .	11,999 75	2,971 31	4,021 60	180 00	1,305 00	1,500 00	385 80	22,363 46	486 25	21,877 21
Harwich, . .	5,130 67	392 50	966 41	158 08	703 68	662 49	191 10	8,204 93	1,743 04	6,461 89
Mashpee, . .	869 15	99 50	157 15	30 00	150 00	119 44	118 74	1,543 98	700 00	843 98
Orleans, . .	3,459 49	1,421 00	614 63	20 00	234 56	505 13	35 80	6,290 61	2,683 77	3,606 84
Provincetown, .	10,814 61	–	1,922 19	250 00	1,136 37	1,271 54	105 77	15,500 48	2,150 92	13,349 56
Sandwich, . .	4,749 86	436 50	515 27	4 13	675 00	846 62	33 00	7,260 38	2,292 49	4,967 89
Truro, . .	2,480 80	9 75	234 51	91 50	262 60	237 07	40 75	3,356 98	1,927 88	1,429 10
Wellfleet, . .	2,390 00	922 20	315 49	100 00	242 40	289 32	61 22	4,320 63	1,035 88	3,284 75
Yarmouth, . .	4,698 76	1,058 45	750 00	165 00	562 50	592 39	148 16	7,975 26	3,610 17	4,365 09
Totals, .	$85,991 45	$16,008 57	$18,454 18	$1,566 71	$9,274 89	$9,576 40	$3,138 38	$144,010 58	$26,928 78	$117,081 80

BERKSHIRE COUNTY — CONTINUED.

Adams, . .	$29,736 44	$222 80	$6,392 37	$200 00	$2,499 96	$2,318 79	$2,290 82	$43,661 18	–	$43,661 18
Alford, . .	1,208 00	–	131 43	38 50	204 56	186 38	46 80	1,815 67	$1,298 77	516 90
Becket, . .	3,123 30	34 50	321 59	51 50	353 31	245 53	57 90	4,187 63	1,438 45	2,749 18
Cheshire, . .	3,271 30	1,040 00	850 54	60 00	450 00	368 99	237 58	6,278 41	2,230 91	4,047 50
Clarksburg, .	2,736 50	–	750 46	45 00	500 00	379 07	13 50	4,424 53	2,001 72	2,422 81
Dalton, . .	11,960 75	278 00	2,884 62	355 00	1,200 00	1,427 95	791 18	18,897 50	1,051 50	17,846 00
Egremont, . .	2,078 00	–	261 02	–	272 60	133 98	59 71	2,805 31	1,424 76	1,380 55
Florida, . .	1,559 00	4 00	91 22	71 55	194 76	75 14	149 78	2,145 45	1,405 24	740 21
Great Barrington,	19,290 77	1,256 62	5,109 72	52 00	1,720 84	2,093 60	1,607 18	31,130 73	1,112 00	30,018 73
Hancock, . .	1,592 40	–	106 56	41 00	500 00	120 25	25 50	2,385 71	1,418 33	967 38
Hinsdale, . .	4,061 58	282 50	537 65	80 00	531 60	504 99	133 66	6,131 98	2,406 78	3,725 20
Lanesborough, .	2,582 04	581 75	514 63	117 00	416 63	126 82	173 58	4,512 45	1,944 22	2,568 23
Lee, . . .	10,233 25	799 07	2,145 27	350 00	720 00	1,149 34	648 27	16,045 20	2,210 98	13,834 22
Lenox, . .	12,717 62	687 60	2,857 18	35 00	1,500 00	1,191 30	497 63	19,486 33	507 00	18,979 33
Monterey, . .	1,221 15	584 50	123 70	73 65	300 00	211 95	26 37	2,541 32	1,509 99	1,031 33
Mt. Washington, .	999 00	–	19 16	16 00	150 00	42 21	20 38	1,246 75	871 75	375 00
New Ashford, .	642 00	111 50	40 20	38 50	83 34	101 92	73 40	1,090 86	990 56	100 30
New Marlborough,	4,140 10	150 25	547 74	93 25	570 00	428 70	95 69	6,025 73	1,993 80	4,031 93
North Adams, .	65,948 82	500 00	12,990 15	1,843 75	2,500 00	4,206 72	1,883 52	89,872 96	–	89,872 96
Otis, . . .	1,870 00	467 50	109 00	44 00	300 00	144 39	15 49	2,950 38	1,708 41	1,241 97
Peru, . . .	1,475 50	151 99	156 40	30 00	285 11	145 41	14 00	2,258 41	1,580 41	678 00
Pittsfield, . .	88,711 71	556 00	16,148 77	1,427 00	2,366 66	7,564 63	2,585 45	119,360 22	–	119,360 22
Richmond, . .	2,219 50	134 00	291 44	20 00	477 20	139 06	21 23	3,302 43	1,676 93	1,625 50
Sandisfield, .	1,959 50	268 14	201 16	76 90	375 00	64 04	50 92	2,995 66	1,347 19	1,648 47
Savoy, . .	2,248 00	50 00	69 75	42 00	367 35	56 56	32 58	2,866 24	1,800 02	1,066 22
Sheffield, . .	4,969 32	426 25	498 16	49 75	780 00	456 10	217 18	7,396 76	2,263 24	5,133 52
Stockbridge, .	9,775 00	1,918 42	1,846 12	62 00	500 00	813 59	519 99	15,435 12	296 22	15,138 90
Tyringham, .	1,538 00	195 00	150 00	–	180 00	85 35	39 70	2,188 05	900 00	1,288 05
Washington, .	2,048 20	–	118 30	17 50	150 05	65 72	43 32	2,443 09	1,367 18	1,075 91
West Stockbridge,	4,005 57	594 75	410 21	15 50	545 50	257 17	57 49	5,886 19	2,023 50	3,862 69
Williamstown, .	14,335 50	114 00	4,045 91	126 00	1,200 00	1,202 66	718 37	21,742 44	231 91	21,510 53
Windsor, . .	2,243 25	221 55	89 86	42 45	366 61	287 75	24 00	3,275 47	1,804 71	1,470 76
Totals, .	$316,501 07	$11,630 69	$60,810 29	$5,514 80	$22,561 08	$26,596 06	$13,172 17	$456,786 16	$42,816 48	$413,969 68

BARNSTABLE COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Barnstable, . .	–	–	$2,518 49	$2,518 49	–	$2,518 49	$30,993 40	$10,000 00	$394 32	$363 95
Bourne, . . .	$14,456 67	$1,005 00	1,093 05	16,554 72	–	16,554 72	29,341 23	–	–	–
Brewster, . . .	–	–	78 00	78 00	–	78 00	2,853 46	–	–	140 75
Chatham, . . .	–	–	475 00	475 00	–	475 00	5,796 96	–	–	134 90
Dennis, . . .	–	261 83	445 54	707 37	–	707 37	7,090 95	–	–	175 00
Eastham, . . .	–	716 45	6 93	723 38	–	723 38	1,876 45	–	–	–
Falmouth, . . .	–	–	2,320 00	2,320 00	–	2,320 00	24,197 21	–	–	–
Harwich, . . .	–	–	248 69	248 69	–	248 69	6,710 58	1,000 00	40 00	244 85
Mashpee, . . .	–	–	122 66	122 66	–	122 66	966 64	–	–	56 64
Orleans, . . .	–	–	140 47	140 47	–	140 47	3,747 31	–	–	129 79
Provincetown, . .	–	24 50	1,098 69	1,123 19	–	1,123 19	14,472 75	–	–	–
Sandwich, . . .	–	–	438 36	438 36	–	438 36	5,406 25	–	–	316 29
Truro, . . .	–	–	187 84	187 84	–	187 84	1,616 94	–	–	–
Wellfleet, . . .	–	–	175 57	175 57	–	175 57	3,460 32	–	–	–
Yarmouth, . . .	–	–	416 25	416 25	–	416 25	4,781 34	15,000 00	810 00	–
Totals, . .	$14,456 67	$2,007 78	$9,765 54	$26,229 99	–	$26,229 99	$143,311 79	$26,000 00	$1,244 32	$1,562 17

BERKSHIRE COUNTY — CONTINUED.

Adams,	–	$18,527 39	$1,324 38	$19,851 77	–	$19,851 77	$63,512 95	–	–	–
Alford,	–	164 09	38 10	202 19	–	202 19	719 09	–	–	–
Becket,	–	590 07	29 00	619 07	$565 00	54 07	2,803 25	–	–	$101 86
Cheshire,	–	–	148 08	148 08	–	148 08	4,195 58	–	–	–
Clarksburg,	–	812 57	110 43	923 00	–	923 00	3,345 81	–	–	–
Dalton,	–	2,972 78	528 87	3,501 65	–	3,501 65	21,347 65	–	–	–
Egremont,	–	100 28	143 35	243 63	–	243 63	1,624 18	–	–	–
Florida,	–	–	119 89	119 89	–	119 89	860 10	–	–	40 95
Great Barrington,	$25,094 61	510 00	853 13	26,457 74	–	26,457 74	56,476 47	–	–	–
Hancock,	–	22 50	91 86	114 36	–	114 36	1,081 74	$200 00	$12 00	–
Hinsdale,	–	–	424 80	424 80	–	424 80	4,150 00	–	–	–
Lanesborough,	–	–	136 03	136 03	–	136 03	2,704 26	–	–	–
Lee,	–	–	527 52	527 52	–	527 52	14,361 74	–	–	–
Lenox,	24,604 26	–	910 23	25,514 49	–	25,514 49	44,493 82	–	–	–
Monterey,	–	–	44 20	44 20	–	44 20	1,075 53	–	–	77 07
Mount Washington,	–	104 00	–	104 00	–	104 00	479 00	100 00	6 00	25 30
New Ashford,	–	49 70	–	49 70	–	49 70	150 00	–	–	–
New Marlborough,	–	91 30	196 74	288 04	–	288 04	4,319 97	–	–	229 72
North Adams,	–	2,980 88	3,218 93	6,199 81	–	6,199 81	96,072 77	–	–	688 79
Otis,	–	–	155 82	155 82	155 82	–	1,241 97	–	–	64 12
Peru,	–	–	–	–	–	–	678 00	–	–	36 00
Pittsfield,	62,514 78	2,801 21	4,650 25	69,966 24	–	69,966 24	189,326 46	–	–	–
Richmond,	–	–	222 57	222 57	–	222 57	1,848 07	–	–	64 12
Sandisfield,	–	25 00	66 93	91 93	87 40	4 53	1,653 00	1,290 00	77 40	–
Savoy,	–	–	4 50	4 50	–	4 50	1,070 72	1,297 00	77 82	82 27
Sheffield,	4,810 50	7 92	65 70	4,884 12	4,810 50	73 62	5,207 14	1,000 00	69 44	221 53
Stockbridge,	–	506 38	416 83	923 21	–	923 21	16,062 11	–	–	–
Tyringham,	–	40 00	13 45	53 45	–	53 45	1,341 50	–	–	64 82
Washington,	–	–	96 43	96 43	96 43	–	1,075 91	–	–	60 91
West Stockbridge,	–	–	105 98	105 98	–	105 98	3,968 67	–	–	–
Williamstown,	–	1,485 00	1,241 92	2,726 92	–	2,726 92	24,237 45	–	–	–
Windsor,	–	–	66 03	66 03	–	66 03	1,536 79	378 50	22 71	74 08
Totals,	$117,024 15	$31,791 07	$15,951 95	$164,767 17	$5,715 15	$159,052 02	$573,021 70	$4,265 50	$265 37	$1,831 54

BARNSTABLE COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1909.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Barnstable,	–	–	–	–	–	–	–	–	–	–
Bourne,	–	–	–	–	–	–	–	–	–	–
Brewster,	$1,018 81	–	–	–	–	–	–	–	–	–
Chatham,	1,108 41	–	–	–	–	–	–	–	–	–
Dennis,	868 81	–	–	–	–	–	–	–	–	–
Eastham,	1,218 81	–	–	–	–	–	–	–	–	–
Falmouth,	–	–	–	–	–	–	–	–	–	–
Harwich,	725 05	–	–	–	–	–	–	–	–	–
Mashpee,	575 00	–	–	–	–	–	–	–	–	–
Orleans,	1,018 80	–	–	–	–	–	–	–	–	–
Provincetown,	868 80	–	–	–	–	–	–	–	–	–
Sandwich,	1,018 80	–	–	–	–	–	–	–	–	–
Truro,	1,075 04	–	–	–	–	–	–	–	–	–
Wellfleet,	629 20	–	–	–	–	–	–	–	–	–
Yarmouth,	650 04	–	–	–	–	–	–	–	–	–
Totals,	$10,775 57	–	–	–	–	–	–	–	–	–

BERKSHIRE COUNTY — CONCLUDED.

Adams,	–	–	–	–	1	455	–	–	–	–
Alford,	$1,075 05	–	–	–	–	–	–	–	–	–
Becket,	1,150 05	–	–	–	–	–	–	–	–	–
Cheshire,	1,258 41	–	–	–	–	–	–	–	–	–
Clarksburg,	1,150 05	$60 00	–	–	–	–	–	–	–	–
Dalton,	–	–	–	–	–	–	–	–	–	–
Egremont,	1,218 81	–	–	–	–	–	–	–	–	–
Florida,	1,150 05	8 00	–	–	–	–	–	–	–	–
Great Barrington,	–	–	–	–	2	22	–	$650 00	$35,000 00	–
Hancock,	1,218 81	–	–	–	–	–	–	–	–	–
Hinsdale,	1,258 41	–	–	–	–	–	–	–	–	–
Lanesborough,	1,458 41	–	–	–	–	–	–	–	–	–
Lee,	1,108 41	–	–	–	1	182	–	–	–	–
Lenox,	–	–	–	–	–	–	–	–	–	–
Monterey,	979 21	–	–	–	–	–	–	–	–	–
Mount Washington,	1,458 41	–	–	–	–	–	–	–	–	–
New Ashford,	575 00	–	–	–	–	–	–	–	–	–
New Marlborough,	1,018 80	–	–	–	–	–	–	–	–	–
North Adams,	–	–	–	–	2	1,507	–	–	–	–
Otis,	1,458 41	–	–	–	–	–	–	–	–	–
Peru,	1,218 80	–	–	–	–	–	–	–	–	–
Pittsfield,	–	400 00	–	–	3	556	–	13,100 00	–	–
Richmond,	1,054 20	–	–	–	–	–	–	–	–	–
Sandisfield,	1,150 04	40 00	–	–	–	–	–	–	–	–
Savoy,	1,293 80	–	–	–	–	–	–	–	–	–
Sheffield,	1,018 80	20 00	–	–	1	14	–	11,475 00	30,000 00	–
Stockbridge,	–	–	–	–	–	–	–	–	–	–
Tyringham,	500 00	–	–	–	–	–	–	–	–	–
Washington,	1,075 04	–	–	–	–	–	–	–	–	–
West Stockbridge,	1,533 40	–	–	–	–	–	–	–	–	–
Williamstown,	–	350 00	–	–	–	–	–	–	–	–
Windsor,	1,150 04	–	–	–	–	–	–	–	–	–
Totals,	$27,530 41	$878 00	–	–	10	2,736	–	$25,225 00	$65,000 00	–

BRISTOL COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1908.	No. of public schools.	School Census Data Sept. 1, 1908.		School Membership, Attendance and Graduation Data for the School Year.							
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.	No. graduated from grammar schools.
Acushnet,	1,284	$680,120	7	236	186	223	1	5	179	177	161	.91	10
Attleborough,	12,702	13,543,770	50	2,584	1,801	2,549	44	194	1,715	2,207	2,045	.93	123
Berkley,	931	419,786	7	187	132	180	2	1	144	156	144	.92	1
Dartmouth,	3,793	3,419,125	26	780	567	689	3	36	549	641	591	.92	32
Dighton,	2,070	1,043,668	12	371	300	357	2	5	281	325	297	.91	15
Easton,	4,909	5,077,919	27	939	642	1,074	56	95	618	1,001	933	.93	45
Fairhaven,	4,235	2,987,822	23	941	761	1,028	–	130	657	891	837	.94	53
Fall River,	105,762	86,275,484	321	22,122	15,874	16,280	170	1,051	11,354	13,678	12,590	.92	388
Freetown,	1,470	858,825	8	269	184	270	4	4	203	231	197	.85	5
Mansfield,	4,245	2,996,578	21	838	604	888	3	89	573	806	741	.92	44
New Bedford,	74,362	75,400,974	240	14,039	9,999	11,154	186	558	7,890	9,611	8,975	.93	231
No. Attleborough,	7,878	5,237,451	32	1,256	897	1,411	3	153	963	1,280	1,192	.93	71
Norton,	2,079	1,127,150	11	336	240	334	2	24	235	309	278	.90	8
Raynham,	1,662	753,622	8	246	187	262	–	4	215	235	208	.89	13
Rehoboth,	1,991	789,056	15	357	278	352	3	3	266	282	265	.94	4
Seekonk,	1,917	1,127,480	10	349	272	367	3	2	275	290	251	.88	11
Somerset,	2,294	1,245,111	13	519	393	562	6	16	386	476	437	.92	17

Swansea, . .	1,839	1,279,737	12	290	234	334	2	3	259	274	243	.89	8
Taunton, . .	30,967	22,269,221	129	5,503	4,012	5,040	–	346	3,462	4,722	4,442	.94	162
Westport, . .	2,867	1,707,900	17	529	384	463	4	12	358	417	381	.91	20
Totals, . .	269,257	$228,240,799	989	52,691	37,947	43,817	494	2,731	30,582	38,009	35,208	.93	1,261

DUKES COUNTY.

Chilmark, . .	322	$289,933	2	30	25	38	–	1	37	27	24	.89	–
Edgartown, . .	1,175	1,009,340	5	156	122	188	–	21	121	166	146	.88	7
Gay Head, . .	178	32,464	1	38	31	38	–	3	31	32	28	.88	–
Gosnold, . .	161	380,391	1	16	13	17	–	–	13	13	12	.92	4
Oak Bluffs, . .	1,138	1,806,075	6	224	168	260	–	18	167	191	175	.92	11
Tisbury, . .	1,120	1,401,516	6	201	144	236	–	30	152	210	199	.95	8
West Tisbury, .	457	534,787	4	63	50	73	1	5	53	69	56	.81	–
Totals, . .	4,551	$5,454,506	25	728	553	850	1	78	574	708	640	.90	30

BRISTOL COUNTY — CONTINUED.

TOWNS AND CITIES.	Teachers and Teachers' Wages.							Length of Schooling.		High Schools.						
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.													
	Men.	Women.	In high schools.	In elementary schools.	No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.
Acushnet, . .	–	7	–	–	5	–	$44 30	67–2	9–12	–	–	–	–	–	–	–
Attleborough, .	6	68	9	2	35	$112 50	56 37	455–8	9–7	1	9	227	76	39	9–15	$10,794 85
Berkley, . .	1	6	–	–	1	42 00	36 68	63	9	–	–	–	–	–	–	–
Dartmouth, .	3	25	2	–	8	65 00	41 57	226–13	8–15	3	3	31	17	12	9–14 9–13 9–13	1,817 00
Dighton, . .	–	12	–	–	3	–	41 76	108–1	9	–	–	–	–	–	–	–
Easton, . .	2	37	3	–	14	150 00	52 61	254–13	9–8	1	4	107	40	10	9–12	7,100 00
Fairhaven, .	4	30	8	3	22	150 00	64 83	218–10	9–10	1	11	149	46	24	9–14	–
Fall River, .	30	405	17	12	72	137 92	57 08	3,161–17	9–17	1	27	786	285	110	9–17	42,802 50
Freetown, . .	1	7	–	–	4	46 00	39 25	70	8–15	–	–	–	–	–	–	–
Mansfield, . .	2	24	4	1	13	114 44	48 12	200–12	9–6	1	5	105	37	14	9–9	5,446 00
New Bedford, .	15	274	10	7	211	198 06	70 38	2,294	9–11	1	22	471	206	76	9–16	34,757 17
No. Attleborough,	2	41	6	1	23	122 33	51 11	290–4	9–1	1	6	149	53	20	9–12	7,348 23
Norton, . .	2	12	2	1	3	75 00	41 00	101–5	9–2	1	3	40	12	9	9–13	2,293 07
Raynham, . .	–	8	–	–	6	–	42 50	69–4	8–13	–	–	–	–	–	–	–
Rehoboth, . .	–	15	–	–	2	–	34 60	131–6	8–15	–	–	–	–	–	–	–
Seekonk, . .	–	10	–	–	2	–	42 40	86–15	8–13	–	–	–	–	–	–	–
Somerset, . .	1	12	1	–	4	60 00	37 67	115	8–17	1	1	37	16	4	10	1,815 00

Swansea, . .	1	11	–	2	3	44 00	36 12	101–12	8–9	–	–	–	–	–	–	–
Taunton, . .	12	144	12	5	72	126 00	55 00	1,186–12	9–2	1	12	398	151	76	9–16	18,420 75
Westport, . .	2	17	1	1	5	47 50	35 00	148–9	8–14	1	1	7	2	4	9–12	531 00
Totals, .	84	1,165	75	35	508	$134 53	$57 38	9,350–3	9–9	14	104	2,507	941	398	9–14	$133,125 57

DUKES COUNTY — Continued.

Chilmark, . .	–	2	–	1	2	–	$51 96	18	9	–	–	–	–	–	–	–
Edgartown, .	2	5	2	–	–	$62 50	39 00	36	7–4	1	2	41	6	8	9–15	$1,516 99
Gay Head, .	1	1	–	–	1	77 77	31 11	8–7	8–7	–	–	–	–	–	–	–
Gosnold, . .	–	1	–	–	1	–	55 00	8–15	8–15	–	–	–	–	–	–	–
Oak Bluffs, .	1	6	2	–	1	75 00	41 66	53–2	8–17	1	2	21	12	6	8–17	1,237 62
Tisbury, . .	1	6	2	–	2	89 11	46 33	54–6	9–1	1	2	38	5	11	9–16	1,629 20
West Tisbury, .	–	4	1	–	3	–	46 25	34–19	8–14	1	1	6	1	–	8–18	285 18
Totals, .	5	25	7	1	10	$73 37	$43 91	213–9	8–10	4	7	106	24	25	9–7	$4,668 99

BRISTOL COUNTY — Continued.

TOWNS AND CITIES.	Expenditures for the Support of Public Schools.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Acushnet, . .	$4,504 84	$899 50	$573 45	$75 00	$375 00	$237 29	$150 95	$6,816 03	$2,745 14	$4,070 89
Attleborough, .	46,322 55	2,885 00	10,629 46	1,648 85	2,037 52	3,514 50	2,500 89	69,538 77	734 18	68,804 59
Berkley, . .	2,339 40	–	417 86	118 50	300 00	245 06	459 07	3,879 89	2,102 25	1,777 64
Dartmouth, .	12,371 50	1,638 50	3,474 78	361 85	910 00	984 19	506 65	20,247 47	752 13	19,495 34
Dighton, . .	6,873 29	465 00	931 80	–	525 00	541 83	155 16	9,492 08	1,561 99	7,930 09
Easton, . .	21,653 00	1,874 00	3,471 87	135 67	1,700 00	2,015 27	433 63	31,283 44	7,587 63	23,695 81
Fairhaven, . .	25,537 50	1,740 50	7,193 26	312 50	1,350 00	2,855 55	2,392 22	41,381 53	24,688 58	16,692 95
Fall River, . .	282,125 75	1,122 00	66,743 39	6,921 72	3,000 00	20,746 16	6,548 04	387,207 06	8,796 65	378,410 41
Freetown, . .	3,809 67	295 33	545 97	127 25	500 00	312 43	173 50	5,764 15	1,933 53	3,830 62
Mansfield, . .	13,949 09	596 61	3,046 15	295 00	720 00	1,910 69	580 07	21,097 61	548 00	20,549 61
New Bedford, .	220,533 53	508 50	39,798 82	4,927 11	5,133 04	16,479 34	16,730 98	304,111 32	3,808 91	300,302 41
No. Attleborough,	24,539 68	–	6,026 26	111 88	1,841 65	2,346 48	2,007 11	36,873 06	46 12	36,826 94
Norton, . .	6,740 00	743 25	1,556 50	38 75	640 00	545 87	303 31	10,567 68	1,783 29	8,784 39
Raynham, . .	4,158 12	802 00	368 00	115 72	300 00	278 90	178 73	6,201 47	2,709 59	3,491 88
Rehoboth, . .	5,590 45	–	460 25	79 27	675 00	438 11	133 72	7,376 80	2,043 80	5,333 00
Seekonk, . .	5,158 25	48 10	637 70	60 00	600 00	268 33	177 09	6,949 47	1,688 12	5,261 35
Somerset, . .	5,564 00	491 80	841 32	123 35	500 00	375 23	165 61	8,061 31	1,525 66	6,535 65

Swansea,	5,815 90	80 00	983 35	113 90	499 94	220 66	204 35	7,918 10	2,167 32	5,750 78
Taunton,	96,403 52	1,409 55	21,955 59	1,222 88	2,400 00	5,711 92	5,296 59	134,400 05	3,493 33	130,906 72
Westport,	6,980 50	661 95	1,389 76	255 15	750 00	639 22	361 69	11,038 27	1,415 85	9,622 42
Totals,	$800,970 54	$16,261 59	$171,045 54	$17,044 35	$24,757 15	$60,667 03	$39,459 36	$1,130,205 56	$72,132 07	$1,058,073 49

DUKES COUNTY — CONTINUED.

Chilmark,	$934 92	$79 50	$109 83	$46 00	$146 63	$66 71	$220 52	$1,604 11	$734 50	$869 61
Edgartown,	2,905 00	446 99	282 07	90 00	346 58	264 54	138 33	4,473 51	1,529 21	2,944 30
Gay Head,	986 59	–	76 63	20 00	100 00	90 66	98 27	1,372 15	1,264 31	107 84
Gosnold,	481 25	–	55 50	41 25	–	37 11	7 50	622 61	547 61	75 00
Oak Bluffs,	2,790 00	296 00	690 94	90 00	400 00	260 30	166 93	4,694 17	312 50	4,381 67
Tisbury,	3,426 57	113 80	576 22	76 00	400 00	254 39	140 84	4,987 82	1,979 26	3,008 56
West Tisbury,	1,991 33	52 50	313 06	35 00	240 00	101 30	10 32	2,743 51	2,075 51	668 00
Totals,	$13,515 66	$988 79	$2,104 25	$398 25	$1,633 21	$1,075 01	$782 71	$20,497 88	$8,442 90	$12,054 98

BRISTOL COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Acushnet,	–	$123 95	$474 53	$598 48	–	$598 48	$4,669 37	–	–	$367 81
Attleborough,	$70,000 00	3,385 26	2,141 75	75,527 01	–	75,527 01	144,331 60	–	–	1,602 01
Berkley,	–	–	75 77	75 77	–	75 77	1,853 41	–	–	–
Dartmouth,	4,834 31	1,334 21	1,506 54	7,675 06	–	7,675 06	27,170 40	$2,000 00	$80 80	690 27
Dighton,	–	155 30	545 58	700 88	–	700 88	8,630 97	–	–	185 37
Easton,	–	–	1,519 62	1,519 62	–	1,519 62	25,215 43	103,000 00	7,492 92	776 92
Fairhaven,	–	3,069 00	842 73	3,911 73	$256 59	3,655 14	20,348 09	7,500 00	305 34	629 99
Fall River,	85,823 56	–	25,417 11	111,240 67	–	111,240 67	489,651 08	50,000 00	2,517 50	–
Freetown,	998 09	72 00	286 31	1,356 40	–	1,356 40	5,187 02	–	–	223 62
Mansfield,	–	–	1,460 80	1,460 80	–	1,460 80	22,010 41	–	–	638 97
New Bedford,	138,014 10	5,405 40	16,324 16	159,743 66	–	159,743 66	460,046 07	51,000 00	3,060 00	1,824 34
North Attleborough,	–	870 54	946 23	1,816 77	–	1,816 77	38,643 71	–	–	1,234 61
Norton,	–	185 81	290 51	476 32	–	476 32	9,260 71	–	–	340 15
Raynham,	–	–	324 15	324 15	–	324 15	3,816 03	–	–	147 92
Rehoboth,	–	–	600 41	600 41	–	600 41	5,933 41	–	–	418 70
Seekonk,	–	1,236 04	285 08	1,521 12	–	1,521 12	6,782 47	–	339 04	287 61
Somerset,	–	–	308 51	308 51	–	308 51	6,844 16	–	–	212 91

Swansea,	–	1,814 68	600 10	2,414 78	–	2,414 78	8,165 56	–	–	416 85
Taunton,	12,000 00	5,200 00	6,533 15	23,733 15	–	23,733 15	154,639 87	–	–	–
Westport,	336 40	366 00	742 63	1,445 03	–	1,445 03	11,067 45	–	–	494 64
Totals,	$312,006 46	$23,218 19	$61,225 67	$396,450 32	$256 59	$396,193 73	$1,454,267 22	$213,500 00	$13,795 60	$10,492 69

DUKES COUNTY — CONTINUED.

Chilmark,	–	$18 00	$185 40	$203 40	–	$203 40	$1,073 01	–	–	–
Edgartown,	–	70 00	167 95	237 95	–	237 95	3,182 25	–	–	$113 15
Gay Head,	–	–	–	–	–	–	107 84	–	–	5 84
Gosnold,	–	–	–	–	–	–	75 00	–	–	–
Oak Bluffs,	–	388 80	133 16	521 96	–	521 96	4,903 63	–	–	115 10
Tisbury,	–	–	152 05	152 05	–	152 05	3,160 61	–	–	139 70
West Tisbury,	–	–	25 25	25 25	–	25 25	693 25	–	–	–
Totals,	–	$476 80	$663 81	$1,140 61	–	$1,140 61	$13,195 59	–	–	$373 79

BRISTOL COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1909.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Acushnet,	$1,018 81	–	–	–	–	–	–	–	–	–
Attleborough,	–	$130 35	–	–	–	–	–	–	–	–
Berkley,	1,218 81	–	–	–	–	–	–	–	–	–
Dartmouth,	–	250 00	–	–	–	–	–	–	–	–
Dighton,	1,108 41	–	–	–	–	–	–	–	–	–
Easton,	–	–	–	–	–	–	–	–	–	–
Fairhaven,	–	200 00	–	–	–	–	–	–	–	–
Fall River,	–	–	3	619	15	5,209	–	$1,780 00	$14,725 93	–
Freetown,	1,018 81	–	–	–	–	–	–	–	–	–
Mansfield,	–	–	–	–	–	–	–	–	–	–
New Bedford,	–	–	1	63	10	3,873	$8,100 00	9,328 00	–	–
North Attleborough,	–	75 00	–	–	–	–	–	–	–	–
Norton,	1,108 41	–	1	165	–	–	15,000 00	–	825,000 00	$30,000 00
Raynham,	1,258 41	–	–	–	–	–	–	–	–	–
Rehoboth,	1,018 80	–	–	–	–	–	–	–	–	–
Seekonk,	868 80	–	–	–	–	–	–	–	–	–
Somerset,	868 80	–	–	–	–	–	–	–	–	–

Swansea,	868 80	–	–	–	–	–	–	–	–	–
Taunton,	–	625 00	1	47	1	839	1,664 69	–	9,735 33	591 27
Westport,	725 04	–	–	–	–	–	–	–	–	–
Totals,	$11,081 90	$1,280 35	6	894	26	9,921	$24,764 69	$11,108 00	$849,461 26	$30,591 27

DUKES COUNTY — Concluded.

Chilmark,	$500 00	–	–	–	–	–	–	–	–	–
Edgartown,	779 21	–	–	–	–	–	–	–	–	–
Gay Head,	1,218 81	–	–	–	–	–	–	–	–	–
Gosnold,	500 00	–	–	–	–	–	–	–	–	–
Oak Bluffs,	150 00	–	–	–	–	–	–	–	–	–
Tisbury,	868 80	–	–	–	–	–	–	–	–	–
West Tisbury,	1,258 40	–	–	–	–	–	–	–	–	–
Totals,	$5,275 22	–	–	–	–	–	–	–	–	–

ESSEX COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1908.	No. of public schools.	School Census Data Sept. 1, 1908.		School Membership, Attendance and Graduation Data for the School Year.							
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.	No. graduated from grammar schools.
Amesbury, . .	8,840	$5,872,030	24	1,560	1,093	995	–	178	650	925	861	.93	82
Andover, . .	6,632	6,190,520	35	1,094	794	1,295	85	94	834	1,187	1,104	.93	46
Beverly, . .	15,223	29,576,175	75	2,979	2,078	3,540	–	378	2,006	2,997	2,801	.93	210
Boxford, . .	665	1,199,921	6	97	81	106	–	–	81	94	84	.89	10
Danvers, . .	9,063	5,881,495	34	1,496	1,127	1,562	2	192	1,063	1,458	1,383	.95	91
Essex, . . .	1,790	1,091,332	8	288	215	320	1	42	214	278	261	.93	24
Georgetown, . .	1,840	1,031,685	8	316	232	298	–	7	223	283	263	.93	17
Gloucester, . .	26,011	22,490,731	120	4,634	3,368	4,910	54	621	3,201	4,658	4,526	.97	242
Groveland, . .	2,401	1,165,064	12	424	293	466	6	48	320	432	408	.93	46
Hamilton, . .	1,646	3,603,170	10	318	255	329	7	17	232	316	283	.90	14
Haverhill, . .	37,830	29,580,320	140	6,754	4,778	6,447	259	745	4,164	5,643	5,215	.92	245
Ipswich, . .	5,205	4,360,800	21	899	652	883	12	75	616	763	707	.93	36
Lawrence, . .	70,050	56,473,458	204	13,108	9,320	9,129	8	516	6,930	8,122	7,592	.93	400
Lynn, . . .	77,042	68,394,741	234	12,558	8,980	10,994	–	1,163	7,155	10,164	9,425	.93	444
Lynnfield, . .	797	778,022	4	119	95	126	–	7	108	100	92	.92	9
Manchester, . .	2,618	12,621,281	13	409	279	524	29	26	292	463	430	.93	36
Marblehead, . .	7,209	7,468,022	28	1,100	741	1,303	89	145	828	1,195	1,089	.91	51
Merrimac, . .	1,884	1,224,701	9	315	229	388	–	60	253	358	329	.92	28
Methuen, . .	8,676	5,913,482	37	1,989	1,405	1,706	7	130	1,260	1,609	1,505	.93	51
Middleton, . .	1,068	769,168	4	183	136	163	4	4	122	143	133	.90	11
Nahant, . .	922	5,934,687	5	173	139	190	1	25	128	175	162	.92	8

Newbury, . .	1,480	1,248,835	7	210	182	211	1	3	168	188	167	.88	11
Newburyport, .	14,675	11,453,701	45	2,375	1,879	2,096	–	287	1,408	1,921	1,788	.93	118
North Andover, .	4,614	4,625,672	24	830	664	894	2	83	640	815	776	.95	38
Peabody, . .	13,098	10,099,038	48	2,388	1,928	2,071	1	178	1,413	1,950	1,780	.91	120
Rockport, . .	4,447	3,191,950	20	827	649	838	8	71	575	780	759	.97	44
Rowley, . .	1,388	748,554	8	294	226	284	–	1	229	260	242	.93	16
Salem, . . .	37,627	31,714,600	122	7,025	4,962	5,431	179	519	2,831	4,806	4,439	.92	278
Salisbury, . .	1,622	898,465	8	286	198	254	6	–	189	219	199	.91	10
Saugus, . .	6,253	5,136,209	38	1,510	1,061	1,699	3	134	1,127	1,484	1,371	.92	71
Swampscott, . .	5,141	9,992,655	22	785	624	1,023	6	92	657	964	914	.95	63
Topsfield, . .	1,095	1,254,962	5	116	81	135	–	2	79	123	108	.88	4
Wenham, . .	924	2,339,075	6	178	127	164	1	3	160	150	140	.93	12
West Newbury, .	1,405	1,061,217	10	245	183	316	3	31	189	256	238	.93	9
Totals, . .	381,181	$355,385,738	1,394	67,882	49,054	61,090	774	5,877	40,345	55,279	51,574	.93	2,895

ESSEX COUNTY — CONTINUED.

TOWNS AND CITIES.	Teachers and Teachers' Wages.							Length of Schooling.		High Schools.						
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.													
	Men.	Women.	In high schools.	In elementary schools.	No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.
Amesbury, . .	2	34	9	1	11	$117 50	$50 68	221–13	9–6	1	9	268	93	40	9–10	$10,075 88
Andover, . .	2	39	6	–	25	142 10	57 12	316–17	9–1	1[1]	7	107	35	9	9–6	8,382 95
Beverly, . .	7	101	23	8	63	135 71	60 17	750	10	1	25	559	176	58	10	31,767 53
Boxford, . .	–	8	–	–	3	–	41 00	57–1	9–10	1[2]	1	7	3	1	9–5	1,300 00
Danvers, . .	4	39	6	2	23	120 00	52 69	313–9	9–4	1	9	230	104	34	9–9	9,657 43
Essex, . .	1	10	4	–	3	90 00	38 80	71–1	8–18	1	4	75	24	6	9–17	2,850 00
Georgetown, .	–	8	–	–	8	–	44 66	72	9	1[3]	3	66	25	11	9–15	5,315 72
Gloucester, .	7	131	14	2	24	154 00	52 00	1,170	9–15	1	17	436	167	57	9–15	17,300 00
Groveland, .	2	12	3	–	10	77 50	40 75	103–15	8–13	1	3	74	32	13	9–2	2,675 00
Hamilton, . .	1	10	–	–	8	90 00	47 00	84–8	9–7	1	2	43	10	–	9–17	1,698 00
Haverhill, . .	11	178	14	–	66	137 52	64 56	1,406	9–15	1	23	713	235	109	9–15	30,350 00
Ipswich, . .	1	26	4	2	7	150 00	44 00	200–15	9–15	1	4	75	48	6	9–12	4,720 00
Lawrence, . .	19	266	19	8	88	151 56	63 61	2,014	9–17	1	27	654	307	97	10	37,087 14
Lynn, . .	23	270	34	12	119	166 97	68 42	2,281–10	9–15	2	41	1,080	402	155	9–15 9–15	73,008 83
Lynnfield, . .	–	4	–	–	–	–	50 60	36–4	9–1	–	–	–	–	–	–	–
Manchester, .	3	16	5	1	10	130 00	59 53	120–14	9–5	1	5	62	41	8	9–14	5,550 00
Marblehead, .	2	40	3	–	24	140 00	57 40	266–9	9–10	1	7	189	44	24	9–15	6,019 58
Merrimac, . .	2	10	3	–	3	92 50	41 75	82–13	9–3	1	3	69	27	12	9–14	2,782 00
Methuen, . .	3	46	3	–	23	125 00	49 66	345–15	9–6	1	6	116	33	17	9–12	6,817 20
Middleton, .	–	4	–	–	3	–	48 50	37	9–5	–	–	–	–	–	–	–
Nahant, . .	1	7	3	–	3	156 00	61 85	46–5	9–5	1	3	46	16	4	9–5	3,418 92

Newbury, . .	–	7	–	–	–	–	44 84	66	9–8	–	–	–	–	–	–	–
Newburyport, .	5	53	12	–	6	136 00	51 00	440–4	9–7	1	12	369	142	50	9–6	10,994 92
North Andover, .	3	28	5	–	17	91 73	54 45	222–19	9–6	1	5	87	26	11	9–11	5,306 00
Peabody, . .	5	58	6	2	37	128 00	55 00	459–10	9–15	1	12	295	79	33	9–14	12,917 78
Rockport, . .	1	25	2	–	14	100 00	44 64	180–10	9–1	1	4	79	25	7	9–8	3,950 00
Rowley, . .	1	7	–	–	3	52 00	34 92	68–9	8–11	–	–	–	–	–	–	–
Salem, . .	12	142	20	7	98	166 67	59 63	1,052–12	9–15	1	23¾	612	243	94	9	30,532 96
Salisbury, . .	1	7	–	1	1	40 00	38 57	70–8	8–16	–	–	–	–	–	–	–
Saugus, . .	1	41	5	1	18	170 00	53 78	327–12	9–2	1	5	145	50	25	9–3	6,630 00
Swampscott, .	2	27	7	–	12	105 00	62 66	206–18	9–8	1	7	161	49	20	9–17	8,419 00
Topsfield, . .	1	5	2	–	2	90 00	41 60	46–15	9–7	1	2	30	10	4	9–16	1,415 75
Wenham, . .	–	6	–	–	–	–	44 00	55–11	9–5	–	–	–	–	–	–	–
West Newbury, .	2	9	2	–	1	76 00	40 00	97	9–14	1	3	42	20	5	9–14	2,110 00
Totals, .	125	1,674	214	47	733	$140 32	$58 46	13,291–17	9–10	29	272	6,689	2,466	910	9–11	$343,052 59

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[1] Punchard Free School.

[2] Barker Free School.

[3] Perley Free School.

ESSEX COUNTY — Continued.

TOWNS AND CITIES.	Expenditures for the Support of Public Schools.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Amesbury, . .	$18,295 76	$830 00	$3,438 48	$45 00	$1,250 00	$1,962 35	$1,359 23	$27,180 82	–	$27,180 82
Andover, . .	26,147 51	1,807 50	4,753 37	50 00	1,833 31	1,996 96	654 39	37,243 04	$3,364 94	33,878 10
Beverly, . .	77,385 50	2,391 30	17,409 89	1,694 25	2,200 00	6,564 94	2,021 04	109,666 92	–	109,666 92
Boxford, . .	2,977 60	–	335 75	–	275 00	178 59	22 12	3,789 06	1,183 75	2,605 31
Danvers, . .	26,857 50	775 00	5,288 65	80 80	1,680 00	2,571 93	3,522 88	40,776 76	1,791 50	38,985 26
Essex, . .	4,965 50	382 50	997 09	70 00	487 18	664 77	144 05	7,711 09	1,954 99	5,756 10
Georgetown, .	4,271 50	1,788 50	1,005 43	–	600 00	653 38	66 59	8,385 40	1,807 19	6,578 21
Gloucester, . .	76,830 25	2,000 00	18,491 16	1,360 00	2,300 00	5,641 69	1,759 02	108,382 12	–	108,382 12
Groveland, . .	6,544 76	–	1,578 97	160 25	600 00	684 73	266 64	9,835 35	1,757 58	8,077 77
Hamilton, . .	6,704 55	286 45	1,388 68	180 50	480 00	731 73	448 66	10,220 57	451 00	9,769 57
Haverhill, . .	128,391 85	1,857 75	21,301 36	1,496 29	2,600 00	8,942 64	4,398 75	168,988 64	1,363 19	167,625 45
Ipswich, . .	12,544 45	575 00	2,064 73	195 00	720 00	1,439 13	877 79	18,416 10	1,488 04	16,928 06
Lawrence, . .	208,305 00	–	34,785 33	4,124 01	3,500 00	18,552 98	6,979 24	276,246 56	–	276,246 56
Lynn, . .	227,082 39	25 75	38,761 27	5,800 00	3,000 00	19,866 77	11,496 17	306,032 35	1,618 18	304,414 17
Lynnfield, . .	3,127 24	200 00	640 48	60 00	200 00	219 99	35 33	4,483 04	2,177 81	2,305 23
Manchester, .	14,873 60	1,110 00	3,003 44	–	1,126 95	1,379 42	979 40	22,472 81	–	22,472 81
Marblehead, .	22,499 40	116 00	4,172 88	830 00	1,612 50	2,539 16	992 77	32,762 71	–	32,762 71
Merrimac, . .	6,368 50	500 00	1,342 30	125 00	608 00	355 65	618 20	9,917 65	1,659 89	8,257 76
Methuen, . .	25,209 08	27 00	6,292 16	32 25	1,429 99	2,155 74	1,768 71	36,914 93	3,644 94	33,269 99
Middleton, . .	3,420 00	1,078 10	616 66	105 00	320 00	233 83	134 79	5,908 38	2,449 99	3,458 39
Nahant, . .	5,503 07	–	1,288 72	–	241 89	683 56	457 16	8,174 40	–	8,174 40

Newbury, . .	3,310 00	1,144 80	1,230 58	83 60	300 00	492 70	106 14	6,667 82	1,820 91	4,846 91
Newburyport, .	35,486 39	64 00	6,158 60	650 00	1,630 00	3,892 15	329 50	48,210 64	2,574 86	45,635 78
North Andover, .	17,271 15	100 00	4,000 62	200 00	900 00	2,107 64	328 70	24,908 11	264 85	24,643 26
Peabody, . .	37,980 23	1,201 76	7,616 64	699 96	1,800 00	2,942 78	3,045 48	55,286 85	138 00	55,148 85
Rockport, . .	11,333 50	–	2,501 17	50 00	1,200 00	1,370 80	364 40	16,819 87	–	16,819 87
Rowley, . .	3,313 60	234 90	637 78	75 00	300 00	355 00	60 26	4,976 54	1,669 59	3,306 95
Salem, . .	108,310 32	434 15	17,598 91	2,350 00	2,500 00	8,349 88	2,838 27	142,381 53	–	142,381 53
Salisbury, . .	2,959 70	580 00	467 38	172 00	300 00	284 87	318 42	5,082 37	1,265 61	3,816 76
Saugus, . .	23,438 69	84 74	7,074 55	150 00	1,260 00	1,979 90	700 49	34,688 37	657 00	34,031 37
Swampscott, .	20,070 56	50 00	4,970 00	230 00	1,000 00	3,078 75	2,682 41	32,081 72	–	32,081 72
Topsfield, . .	2,812 50	492 50	293 37	74 00	179 50	235 95	29 92	4,117 74	994 36	3,123 38
Wenham, . .	4,724 00	361 00	842 79	107 50	320 00	176 31	182 00	6,713 60	882 99	5,830 61
West Newbury, .	5,051 48	578 50	746 87	89 00	475 00	646 88	293 33	7,881 06	2,339 99	5,541 07
Totals, .	$1,184,367 13	$21,077 20	$223,096 06	$21,339 41	$39,229 32	$103,933 55	$50,282 25	$1,643,324 92	$39,321 15	$1,604,003 77

ESSEX COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Amesbury, . . .	$34,962 50	–	$1,134 62	$36,097 12	–	$36,097 12	$63,277 94	–	–	–
Andover, . . .	–	$3,994 60	1,721 92	5,716 52	–	5,716 52	39,594 62	$74,805 00	$4,652 94	–
Beverly, . . .	28,100 85	–	5,431 53	33,532 38	–	33,532 38	143,199 30	3,000 00	120 00	$503 80
Boxford, . . .	–	–	78 17	78 17	–	78 17	2,683 48	3,400 00	121 20	–
Danvers, . . .	–	2,370 40	825 00	3,195 40	–	3,195 40	42,180 66	–	–	749 37
Essex, . . .	–	–	555 63	555 63	–	555 63	6,311 73	–	–	183 23
Georgetown, . . .	–	–	139 73	139 73	–	139 73	6,717 94	–	–	188 80
Gloucester, . . .	–	926 45	7,642 69	8,569 14	–	8,569 14	116,951 26	10,000 00	440 08	1,111 99
Groveland, . . .	–	4,111 96	431 37	4,543 33	–	4,543 33	12,621 10	–	–	–
Hamilton, . . .	–	447 59	220 11	667 70	–	667 70	10,437 27	–	–	312 13
Haverhill, . . .	67,632 36	11,978 41	14,123 17	93,733 94	–	93,733 94	261,359 39	6,020 00	258 00	–
Ipswich, . . .	18,254 61	2,718 90	664 42	21,637 93	$7,000 00	14,637 93	31,565 99	28,303 68	1,550 70	413 33
Lawrence, . . .	2,600 00	1,078 25	21,352 79	25,031 04	–	25,031 04	301,277 60	–	–	–
Lynn, . . .	38,452 49	20,122 77	13,350 41	71,925 67	–	71,925 67	376,339 84	–	–	–
Lynnfield, . . .	–	–	31 95	31 95	–	31 95	2,337 18	–	–	–
Manchester, . . .	–	–	300 00	300 00	–	300 00	22,772 81	–	–	–
Marblehead, . . .	895 42	915 10	562 52	2,373 04	–	2,373 04	35,135 75	–	–	–
Merrimac, . . .	–	–	502 85	502 85	–	502 85	8,760 61	–	–	308 00
Methuen, . . .	–	7,538 62	2,739 31	10,277 93	–	10,277 93	43,547 92	–	–	868 12
Middleton, . . .	–	586 10	104 91	691 01	–	691 01	4,149 40	–	–	139 19
Nahant, . . .	–	–	480 28	480 28	–	480 28	8,654 68	–	–	–

Newbury, . . .	–	143 75	219 47	363 22	–	363 22	5,210 13	–	–	206 70
Newburyport, . .	–	–	4,848 04	4,848 04	–	4,848 04	50,483 82	15,250 00	675 00	–
North Andover, . .	–	6,053 89	1,027 79	7,081 68	–	7,081 68	31,724 94	4,000 00	166 20	–
Peabody, . . .	9,000 00	2,350 00	4,113 63	15,463 63	9,000 00	6,463 63	61,612 48	1,573 09	63 40	1,215 45
Rockport, . . .	–	1,742 72	520 81	2,263 53	–	2,263 53	19,083 40	–	–	–
Rowley, . . .	–	160 20	136 25	296 45	–	296 45	3,603 40	–	–	–
Salem, . . .	–	360 00	6,940 07	7,300 07	–	7,300 07	149,681 60	5,425 00	217 00	1,903 41
Salisbury, . . .	–	–	323 98	323 98	–	323 98	4,140 74	–	–	–
Saugus, . . .	–	485 00	897 35	1,382 35	–	1,382 35	35,413 72	–	–	–
Swampscott, . .	7,383 44	4,000 00	1,557 99	12,941 43	–	12,941 43	45,023 15	–	–	–
Topsfield, . . .	–	–	235 91	235 91	–	235 91	3,359 29	–	–	137 80
Wenham, . . .	–	–	110 42	110 42	–	110 42	5,941 03	–	–	191 74
West Newbury, . .	–	108 00	138 86	246 86	–	246 86	5,787 93	–	–	–
Totals, . .	$207,281 67	$72,192 71	$93,463 95	$372,938 33	$16,000 00	$356,938 33	$1,960,942 10	$151,776 77	$8,264 52	$8,433 06

ESSEX COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1909.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Amesbury,	–	–	–	–	2	748	–	–	–	–
Andover,	–	–	2	590	1	7	$66,854 16	–	$1,017,521 18	$20,715 07
Beverly,	–	$6,000 00	–	–	2	24	–	$1,015 00	–	–
Boxford,	$725 05	–	–	–	–	–	–	–	–	–
Danvers,	–	100 00	1	15	–	–	–	–	20,000 00	–
Essex,	1,108 41	75 00	–	–	–	–	–	–	–	–
Georgetown,	868 81	–	–	–	–	–	–	–	–	–
Gloucester,	–	–	–	–	2	219	–	1,750 00	–	–
Groveland,	1,108 41	–	–	–	–	–	–	–	–	–
Hamilton,	–	–	–	–	–	–	–	–	–	–
Haverhill,	–	–	1	126	5	1,852	12,600 00	–	300,000 00	–
Ipswich,	–	–	–	–	–	–	–	–	–	–
Lawrence,	–	–	–	–	10	4,317	–	–	–	–
Lynn,	–	–	–	–	6	3,274	–	–	–	–
Lynnfield,	1,018 81	–	–	–	–	–	–	–	–	–
Manchester,	–	–	–	–	–	–	–	–	–	–
Marblehead,	–	–	–	–	–	–	–	–	–	–
Merrimac,	868 81	–	–	–	1	22	–	7,000 00	–	–
Methuen,	–	50 00	–	–	1	91	–	7,000 00	–	–
Middleton,	1,258 41	–	–	–	–	–	–	–	–	–
Nahant,	–	–	–	–	–	–	–	–	–	–

Newbury,	1,108 41	–	–	–	–	–	–	–	–	–
Newburyport,	–	–	1	65	6	602	–	1,000 00	130,000 00	3,500 00
North Andover,	–	375 00	–	–	–	–	–	–	–	–
Peabody,	–	220 00	–	–	1	553	–	–	–	–
Rockport,	–	25 61	–	–	–	–	–	–	–	–
Rowley,	1,018 80	–	–	–	–	–	–	–	–	–
Salem,	–	–	–	–	12	3,289	–	–	–	–
Salisbury,	875 04	–	–	–	–	–	–	–	–	–
Saugus,	–	–	–	–	–	–	–	–	–	–
Swampscott,	–	–	–	–	–	–	–	–	–	–
Topsfield,	868 80	–	–	–	–	–	–	–	–	–
Wenham,	793 80	–	–	–	–	–	–	–	–	–
West Newbury,	1,108 40	–	–	–	–	–	–	–	–	–
Totals,	$12,729 96	$6,845 61	5	796	49	14,998	$79,454 16	$17,765 00	$1,467,521 18	$24,215 07

FRANKLIN COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1908.	No. of public schools.	School Census Data Sept. 1, 1908.		School Membership, Attendance and Graduation Data for the School Year.							
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.	No. graduated from grammar schools.
Ashfield, . .	959	$599,955	11	150	115	190	–	38	115	172	161	.94	10
Bernardston, .	769	422,463	5	119	83	120	–	22	88	120	110	.92	12
Buckland, . .	1,500	697,492	9	256	204	245	–	5	194	230	214	.93	20
Charlemont, . .	1,002	479,626	11	174	133	214	4	37	133	188	175	.93	11
Colrain, . .	1,780	647,905	15	343	280	351	–	8	281	299	271	.90	15
Conway, . .	1,340	702,574	11	201	161	235	1	22	152	204	190	.93	11
Deerfield, . .	2,112	1,617,018	14	378	270	337	3	2	253	302	276	.91	13
Erving, . .	1,094	927,674	8	173	134	190	2	2	139	186	160	.92	–
Gill, . . .	1,023	452,117	6	157	110	132	–	–	103	123	111	.91	5
Greenfield, . .	9,156	9,114,300	46	1,580	1,106	1,810	32	210	1,104	1,625	1,484	.91	87
Hawley, . .	448	156,586	7	97	76	96	–	1	69	81	76	.94	1
Heath, . . .	356	165,765	3	53	39	61	2	1	48	55	52	.94	6
Leverett, . .	703	303,753	5	138	120	138	1	2	120	129	115	.91	1
Leyden, . .	408	171,966	4	72	49	77	1	2	60	53	47	.89	4
Monroe, . .	269	157,478	4	61	51	64	2	1	34	57	52	.92	7
Montague, . .	7,015	4,259,986	32	1,251	991	1,170	7	116	865	1,098	1,032	.93	80
New Salem, . .	672	363,650	7	107	74	137	1	25	95	121	105	.92	8
Northfield, . .	2,017	1,241,834	9	260	215	306	3	26	214	229	210	.92	21
Orange, . .	5,578	3,544,325	24	921	666	1,082	2	69	709	1,052	966	.93	50
Rowe, . .	533	191,893	5	105	80	92	2	2	76	73	69	.94	1
Shelburne, . .	1,515	1,116,207	10	232	175	269	–	43	171	249	232	.93	20
Shutesbury, . .	374	248,960	3	43	30	51	2	3	37	42	39	.92	4

Sunderland,	910	491,429	4	147	101	150	2	3	62	137	129	.94	11
Warwick,	527	374,150	4	132	97	137	1	3	77	99	89	.89	1
Wendell,	480	249,466	6	88	65	81	–	2	67	69	64	.93	2
Whately,	822	438,888	5	113	75	103	–	3	78	90	82	.91	–
Totals,	43,362	$29,137,460	268	7,351	5,500	7,838	68	648	5,344	7,083	6,511	.92	401

HAMPDEN COUNTY.

Agawam,	2,795	$1,771,125	14	552	417	476	2	14	358	437	395	.90	12
Blandford,	746	470,131	8	124	96	113	1	5	93	81	70	.86	1
Brimfield,	894	506,092	6	156	111	164	–	16	120	148	137	.93	12
Chester,	1,366	678,687	11	282	218	329	3	17	207	271	248	.92	12
Chicopee,	20,191	12,143,980	78	3,983	2,908	3,111	98	174	2,109	2,607	2,363	.91	89
E. Longmeadow,	1,327	674,575	10	360	257	373	1	9	276	310	283	.91	4
Granville,	865	464,958	8	171	124	182	–	4	127	145	131	.90	7
Hampden,	561	384,050	6	146	117	123	4	3	91	110	99	.90	1
Holland,	151	100,297	1	22	12	17	–	–	13	14	13	.93	3
Holyoke,	49,934	45,889,500	149	10,940	8,805	7,014	425	603	4,503	6,230	5,780	.93	296
Longmeadow,	964	1,220,655	5	189	166	153	–	7	121	142	129	.91	11
Ludlow,	3,881	3,717,446	26	760	656	828	3	44	631	753	693	.91	15
Monson,	4,344	1,776,218	23	651	482	762	–	99	510	666	623	.93	35
Montgomery,	259	168,209	4	36	25	39	2	1	27	35	30	.85	3
Palmer,	7,755	4,072,513	29	1,578	1,066	1,276	5	117	845	1,151	1,094	.95	33
Russell,	1,053	710,487	9	169	126	174	–	13	156	169	154	.91	6
Southwick,	1,048	669,640	9	172	107	187	–	6	142	144	131	.91	8
Springfield,	73,540	97,098,308	298	12,989	9,205	14,451	829	1,549	8,258	12,367	11,395	.92	524
Tolland,	274	187,636	1	29	26	28	–	3	21	20	15	.72	–
Wales,	645	286,698	4	73	37	91	–	–	77	79	73	.92	2
Westfield,	13,611	9,093,815	58	2,539	1,738	2,403	86	288	1,270	2,201	2,043	.93	120
West Springfield,	8,101	6,439,786	43	1,655	1,168	1,928	71	204	1,230	1,734	1,576	.91	61
Wilbraham,	1,708	1,083,808	12	250	182	256	2	7	190	221	207	.94	15
Totals,	196,013	$189,608,614	812	37,826	28,049	34,478	1,532	3,183	21,375	30,035	27,682	.92	1,270

FRANKLIN COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.						
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.												
Ashfield,	1	12	3	1	3	$100 00	$32 50	93–18	8–16	1	3	54	31	5	9–18	$2,474 70
Bernardston,	–	6	2	–	–	–	46 00	44–10	8–18	1[1]	2	23	13	2	10	1,426 24
Buckland,	–	9	–	–	5	–	44 44	77–17	8–13	–	–	–	–	–	–	–
Charlemont,	1	11	2	–	2	80 00	36 30	83–14	8–1	1	2	35	18	–	9–14	1,550 00
Colrain,	–	15	–	–	2	–	32 08	133–11	8–18	–	–	–	–	–	–	–
Conway,	–	12	2	–	–	–	33 42	84–10	8–8	1	2	25	10	4	10	1,291 20
Deerfield,	–	14	–	–	9	–	39 28	122–10	8–15	1[2]	4	63	20	9	9–5	4,307 34
Erving,	–	8	–	–	3	–	40 58	71	8–17	–	–	–	–	–	–	–
Gill,	–	6	–	–	–	–	40 00	54	9	–	–	–	–	–	–	–
Greenfield,	4	49	7	3	37	145 00	59 75	439	9–15	1	7	209	81	33	9–15	8,772 00
Hawley,	–	7	–	–	–	–	33 88	53–15	8	–	–	–	–	–	–	–
Heath,	–	3	–	–	1	–	40 00	24	8	–	–	–	–	–	–	–
Leverett,	–	5	–	–	–	–	41 56	35–12	8–18	–	–	–	–	–	–	–
Leyden,	–	4	–	–	1	–	36 62	34	8–10	–	–	–	–	–	–	–
Monroe,	–	4	–	–	1	–	35 00	36	9	–	–	–	–	–	–	–
Montague,	3	38	5	–	24	90 00	52 61	289–14	9–1	2	9	183	60	15	9–15 9–15	9,907 50
New Salem,	1	7	3	–	3	80 00	32 66	58	8–6	1	3	32	10	3	10	1,876 46
Northfield,	–	11	–	–	1	–	45 00	79	8–15	1	3	42	21	2	9–8	2,043 00
Orange,	1	29	7	–	20	166 00	45 47	223–10	9–9	1	2	205	51	27	9–18	6,583 18
Rowe,	–	5	–	–	1	–	39 20	40	8	–	–	–	–	–	–	–
Shelburne,	1	13	5	–	3	140 00	47 75	90–5	9	1	5	152	50	21	9–10	5,382 70
Shutesbury,	–	3	–	–	1	–	37 98	26–3	8–14	–	–	–	–	–	–	–

Sunderland,	–	6	–	–	1	–	36 66	35	8–15	–	–	–	–	–	–	–
Warwick,	–	4	–	–	3	–	40 00	36	9	–	–	–	–	–	–	–
Wendell,	–	6	–	–	1	–	31 00	49–10	8–5	–	–	–	–	–	–	–
Whately,	–	5	–	–	5	–	38 66	45	9	–	–	–	–	–	–	–
Totals,	12	292	36	4	127	$118 00	$44 42	2,359–19	8–17	12	42	1,023	365	121	9–14	$45,614 32

HAMPDEN COUNTY — CONTINUED.

Agawam,	–	14	–	–	6	–	$41 89	126–7	9–1	–	–	–	–	–	–	–
Blandford,	1	7	–	–	2	$34 00	34 28	62–18	8–4	–	–	–	–	–	–	–
Brimfield,	1	8	4	–	1	150 00	47 00	52–17	8–16	1[3]	4	31	16	4	9–12	–
Chester,	1	12	3	1	7	87 75	41 29	95–10	8–14	1	3	49	19	6	9–10	$2,748 82
Chicopee,	2	87	7	1	60	180 00	50 91	744–10	9–11	1	8	173	94	19	9–16	11,464 58
E. Longmeadow,	–	10	–	2	5	–	44 28	91	9–2	–	–	–	–	–	–	–
Granville,	–	8	–	–	1	–	36 50	70	8–15	–	–	–	–	–	–	–
Hampden,	–	6	–	1	2	–	41 32	56	9–7	–	–	–	–	–	–	–
Holland,	–	1	–	–	–	–	48 00	9	9	–	–	–	–	–	–	–
Holyoke,	20	189	27	8	128	140 52	66 72	1,429–7	9–12	1	29	719	296	96	9–15	43,662 52
Longmeadow,	–	5	–	–	5	–	52 00	45–5	9–1	–	–	–	–	–	–	–
Ludlow,	–	29	2	–	17	–	46 00	248	9–14	1	4	34	18	9	9–7	2,880 00
Monson,	4	25	7	–	6	106 00	42 89	211–1	9–3	1[4]	7	92	34	14	9–10	3,802 00
Montgomery,	–	4	–	–	3	–	34 64	33	8–5	–	–	–	–	–	–	–
Palmer,	1	35	5	–	22	150 00	46 00	254–14	8–15	1	5	123	52	19	9–13	4,984 60
Russell,	–	9	–	1	3	–	38 22	78–18	8–15	–	–	–	–	–	–	–
Southwick,	–	9	–	–	1	–	41 11	85–15	9–10	–	–	–	–	–	–	–
Springfield,	33	366	55	27	230	163 63	69 14	2,860–16	9–12	2	63	1,484	429	190	9–9 9–9	99,315 60
Tolland,	–	1	–	–	1	–	48 00	9–15	9–15	–	–	–	–	–	–	–
Wales,	2	2	–	1	1	41 00	40 00	32–2	8–14	–	–	–	–	–	–	–
Westfield,	6	76	11	3	58	167 16	52 00	529–3	9–13	1	13	320	106	57	9–17	18,488 00
West Springfield,	5	44	6	1	30	103 68	47 33	381–15	9–6	1	7	200	60	36	9–17	8,063 90
Wilbraham,	–	12	–	–	8	–	42 46	108	9	–	–	–	–	–	–	–
Totals,	76	959	127	46	597	$144 99	$59 30	7,615 13	9–7	11	143	3,225	1,124	450	9–12	$195,410 02

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[1] Powers Institute.
[2] Deerfield Academy and Dickinson High School.
[3] Hitchcock Free Academy.
[4] Monson Academy.

FRANKLIN COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Ashfield, . .	$4,855 90	$168 07	$538 76	$36 00	$589 30	$313 60	$26 00	$6,527 63	$3,121 68	$3,405 95
Bernardston, .	2,710 00	928 50	427 15	75 00	333 24	259 39	87 92	4,821 20	3,011 73	1,809 47
Buckland, . .	5,447 15	178 60	724 55	20 00	450 00	286 58	55 89	7,162 77	3,445 31	3,717 46
Charlemont, .	3,899 00	630 41	680 81	83 00	512 28	460 72	279 07	6,545 29	3,206 14	3,339 15
Colrain, . .	6,195 10	606 00	435 90	18 00	655 00	321 24	110 15	8,341 39	3,090 79	5,250 60
Conway, . .	3,480 25	583 75	960 15	75 00	580 74	363 68	95 21	6,138 78	2,156 68	3,982 10
Deerfield, . .	5,111 25	957 00	1,023 05	110 22	704 21	442 14	112 63	8,460 50	1,701 54	6,758 96
Erving, . .	3,549 75	580 30	829 74	48 00	571 44	235 15	122 96	5,937 34	1,838 87	4,098 47
Gill, . . .	2,500 71	364 00	262 95	45 00	325 00	154 19	39 35	3,691 20	1,921 61	1,769 59
Greenfield, . .	25,021 52	1,586 65	5,822 57	130 00	1,833 00	2,494 70	2,800 32	39.688 76	824 91	38,863 85
Hawley, . .	2,010 33	18 20	108 27	50 15	303 67	185 45	96 31	2,772 38	1,786 08	986 30
Heath, . .	1,258 50	685 00	71 63	24 70	142 65	54 77	47 38	2,284 63	1,403 25	881 38
Leverett, . .	1,746 00	881 17	130 25	147 50	388 10	167 51	73 95	3,534 48	2,067 88	1,466 60
Leyden, . .	1,473 00	–	69 30	35 00	325 00	91 01	36 68	2,029 99	1,272 41	757 58
Monroe, . .	1,519 00	–	230 90	10 00	187 17	88 09	56 96	2,092 12	1,239 11	853 01
Montague, . .	21,689 48	2,886 36	5,318 00	47 50	1,800 00	2,047 16	1,228 51	35,017 01	952 59	34,064 42
New Salem, .	3,335 86	468 65	560 21	–	587 73	345 20	15 00	5,312 65	2,776 81	2,535 84
Northfield, . .	4,788 00	566 66	636 33	5 68	650 00	524 14	177 78	7,348 59	2,048 38	5,300 21
Orange, . .	15,095 71	2,935 00	3,696 47	50 00	1,700 00	2,195 85	611 42	26,284 45	–	26,284 45
Rowe, . .	1,580 00	303 50	128 93	55 00	237 74	199 02	109 43	2,613 62	1,410 20	1,203 42
Shelburne, . .	5,407 26	398 41	874 28	100 00	472 50	306 09	87 21	7,645 75	2,320 50	5,325 25
Shutesbury, .	1,028 70	388 60	36 15	45 00	166 66	32 29	23 37	1,720 77	942 06	778 71

Sunderland, .	2,768 50	1,598 12	553 70	40 00	294 29	227 79	74 35	5,556 75	2,355 98	3,200 77
Warwick, . .	1,826 00	1,770 00	208 50	18 25	325 00	112 89	58 05	4,318 69	1,992 70	2,325 99
Wendell, . .	1,897 60	155 75	130 37	40 00	428 57	53 53	34 63	2,740 45	1,700 73	1,039 72
Whately, . .	2,384 00	678 00	245 22	115 00	183 44	201 16	126 10	3,932 92	1,712 91	2,220 01
Totals, .	$132,578 57	$20,316 70	$24,704 14	$1,424 00	$14,746 73	$12,163 34	$6,586 63	$212,520 11	$50,300 85	$162,219 26

HAMPDEN COUNTY — Continued.

Agawam, . .	$7,897 10	$637 50	$1,678 31	$155 50	$631 56	$630 51	$122 04	$11,752 52	$1,970 03	$9,782 49
Blandford, . .	3,438 76	120 00	182 11	25 00	355 45	82 85	21 14	4,225 31	1,890 81	2,334 50
Brimfield, . .	1,810 50	782 60	229 24	54 50	450 00	151 50	33 00	3,511 34	1,845 49	1,665 85
Chester, . .	5,595 05	101 00	778 30	40 00	774 08	762 32	93 50	8,144 25	3,209 31	4,934 94
Chicopee, . .	50,473 62	1,974 00	11,858 27	350 00	2,000 00	4,032 78	1,811 41	72,500 08	122 50	72,377 58
East Longmeadow,	6,167 98	–	819 32	141 82	484 92	417 58	127 66	8,159 28	3,422 63	4,736 65
Granville, . .	2,562 00	605 38	237 20	45 00	450 00	132 92	136 00	4,168 50	1,855 81	2,312 69
Hampden, . .	2,419 00	142 25	319 99	112 00	309 18	234 69	62 00	3,599 11	1,944 09	1,655 02
Holland, . .	529 22	273 83	39 40	3 00	80 00	25 60	21 30	972 35	611 85	360 50
Holyoke, . .	163,949 26	723 00	28,526 51	5,045 84	3,000 00	10,958 92	12,510 78	224,714 31	–	224,714 31
Longmeadow, .	5,488 50	430 00	645 65	15 00	242 40	250 88	181 86	7,254 29	2,298 64	4,955 65
Ludlow, . .	14,148 90	1,949 98	4,280 92	357 83	1,018 44	1,071 52	1,636 89	24,464 48	1,567 86	22,896 62
Monson, . .	12,888 30	65 50	1,528 72	165 25	1,050 00	1,029 64	276 49	17,003 90	2,488 41	14,515 49
Montgomery, .	1,572 00	163 00	79 50	14 00	187 50	76 59	42 44	2,135 03	1,631 06	503 97
Palmer, . .	17,156 20	1,641 70	4,718 85	556 55	1,933 36	1,385 48	1,057 86	28,450 00	676 60	27,773 40
Russell, . .	3,941 18	179 50	290 84	25 00	412 25	198 99	19 78	5,067 54	1,526 25	3,541 29
Southwick, . .	3,430 00	115 00	313 84	113 75	525 00	104 75	43 00	4,645 34	2,862 76	1,782 58
Springfield, .	344,590 73	1,128 43	78,156 00	8,034 77	6,400 00	37,017 32	9,676 90	485,004 15	11,167 06	473,837 09
Tolland, . .	452 82	708 80	30 25	35 00	150 00	59 90	–	1,436 77	1,168 26	268 51
Wales, . .	1,347 44	715 00	233 71	10 00	240 00	135 66	29 84	2,711 65	1,498 46	1,213 19
Westfield, . .	46,467 08	2,661 50	8,609 87	170 24	2,338 00	6,877 76	2,329 12	69,453 57	7,680 29	61,773 28
West Springfield, .	25,928 73	225 00	6,652 56	58 07	1,800 00	1,421 96	620 20	36,706 52	2,603 76	34,102 76
Wilbraham, .	6,098 01	20 40	1,134 57	111 00	612 32	757 52	142 02	8,875 84	1,558 94	7,316 90
Totals, .	$728,352 38	$15,363 37	$151,343 93	$15,639 12	$25,444 46	$67,817 64	$30,995 23	$1,034,956 13	$55,600 87	$979,355 26

FRANKLIN COUNTY — Continued.

TOWNS AND CITIES.	Expenditures for School Buildings.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	Local Funds whose Income must be appropriated to the Public Schools.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Ashfield,	–	$500 00	$146 74	$646 74	$550 00	$96 74	$3,502 69	$22,550 00	$1,052 87	$50 39
Bernardston,	–	–	163 20	163 20	–	163 20	1,972 67	14,218 67	530 19	60 47
Buckland,	–	–	314 62	314 62	314 62	–	3,717 46	–	–	69 30
Charlemont,	–	–	112 53	112 53	112 53	–	3,339 15	3,600 00	158 80	68 54
Colrain,	–	–	127 74	127 74	–	127 74	5,378 34	–	125 80	82 14
Conway,	–	990 71	130 86	1,121 57	–	1,121 57	5,103 67	1,000 00	41 23	105 35
Deerfield,	–	–	287 14	287 14	–	287 14	7,046 10	–	–	106 97
Erving,	–	–	210 78	210 78	–	210 78	4,309 25	–	–	66 52
Gill,	–	164 23	61 98	226 21	125 80	100 41	1,870 00	–	–	–
Greenfield,	$20,517 05	–	1,992 72	22,509 77	–	22,509 77	61,373 62	–	–	–
Hawley,	–	–	148 86	148 86	–	148 86	1,135 16	325 00	20 00	45 10
Heath,	–	–	66 96	66 96	–	66 96	948 34	–	–	30 74
Leverett,	950 44	–	28 00	978 44	–	978 44	2,445 04	–	–	–
Leyden,	–	106 19	45 08	151 27	125 80	25 47	783 05	–	125 80	–
Monroe,	–	–	67 19	67 19	–	67 19	920 20	–	–	–
Montague,	–	4,026 50	1,157 94	5,184 44	–	5,184 44	39,248 86	–	–	–
New Salem,	–	–	57 38	57 38	–	57 38	2,593 22	–	–	59 21
Northfield,	–	–	180 50	180 50	–	180 50	5,480 71	–	–	208 10
Orange,	–	–	671 80	671 80	–	671 80	26,956 25	–	–	–
Rowe,	–	–	–	–	–	–	1,203 42	200 00	8 08	38 06
Shelburne,	–	–	331 65	331 65	–	331 65	5,656 90	14,000 00	500 00	64 50
Shutesbury,	–	–	31 24	31 24	31 24	–	778 71	–	–	31 24

Sunderland, . .	–	292 15	61 98	354 13	–	354 13	3,554 90	–	–	–
Warwick, . . .	–	–	2 25	2 25	2 25	–	2,325 99	500 00	20 20	–
Wendell, . . .	–	246 86	4 04	250 90	–	250 90	1,290 62	1,340 00	193 10	–
Whately, . . .	–	–	–	–	–		2,220 01	–	–	–
Totals, . .	$21,467 49	$6,326 64	$6,403 18	$34,197 31	$1,262 24	$32,935 07	$195,154 33	$57,733 67	$2,776 07	$1,086 63

HAMPDEN COUNTY — Continued.

Agawam, . . .	–	$277 75	$96 87	$374 62	–	$374 62	$10,157 11	$4,893 75	$278 90	–
Blandford, . . .	–	–	110 92	110 92	–	110 92	2,445 42	–	–	$131 88
Brimfield, . . .	–	–	222 11	222 11	–	222 11	1,887 96	424 60	–	–
Chester, . . .	$25,000 00	–	278 32	25,278 32	–	25,278 32	30,213 26	–	–	156 08
Chicopee, . . .	15,000 00	1,241 96	5,085 23	21,327 19	–	21,327 19	93,704 77	–	–	–
East Longmeadow, .	–	120 00	529 09	649 09	–	649 09	5,385 74	731 00	29 52	199 32
Granville, . . .	–	12 00	105 91	117 91	–	117 91	2,430 60	–	–	–
Hampden, . . .	–	121 75	–	121 75	–	121 75	1,776 77	–	–	127 04
Holland, . . .	–	–	3 75	3 75	$3 75	–	360 50	222 22	8 96	38 90
Holyoke, . . .	28,780 15	14,253 15	10,432 77	53,466 07	–	53,466 07	278,180 38	–	–	2,334 96
Longmeadow, . .	–	257 60	148 37	405 97	–	405 97	5,361 62	–	–	–
Ludlow, . . .	3,120 00	1,152 94	318 91	4,591 85	–	4,591 85	27,488 47	–	–	121 63
Monson, . . .	–	265 50	670 01	935 51	–	935 51	15,451 00	–	–	482 98
Montgomery, . .	–	–	55 41	55 41	–	55 41	559 38	–	–	–
Palmer, . . .	–	3,311 19	439 37	3,750 56	–	3,750 56	31,523 96	–	–	742 23
Russell, . . .	–	–	259 78	259 78	–	259 78	3,801 07	–	–	83 49
Southwick, . . .	–	–	269 54	269 54	–	269 54	2,052 12	15,618 03	774 12	195 72
Springfield, . . .	137,180 18	9,640 15	15,973 62	162,793 95	–	162,793 95	636,631 04	–	–	–
Tolland, . . .	–	16 00	–	16 00	–	16 00	284 51	–	–	105 46
Wales, . . .	–	44 00	25 05	69 05	–	69 05	1,282 24	–	–	–
Westfield, . . .	–	2,639 85	3,085 53	5,725 38	–	5,725 38	67,498 66	–	–	–
West Springfield, .	–	1,141 66	804 34	1,946 00	–	1,946 00	36,048 76	14,340 00	787 76	–
Wilbraham, . .	–	–	478 12	478 12	478 12	–	7,316 90	1,308 40	78 50	229 18
Totals, . .	$209,080 33	$34,495 50	$39,393 02	$282,968 85	$481 87	$282,486 98	$1,261,842 24	$37,538 00	$1,957 76	$4,948 87

FRANKLIN COUNTY — Concluded.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1909.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	Academies and Private Schools.				Estimated Amount of Tuition paid in —		Funds whose Income must be appropriated to Academies or Private Schools.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Ashfield,	$1,018 81	$19 00	–	–	–	–	–	–	–	–
Bernardston,	1,458 41	–	–	–	–	–	–	–	–	–
Buckland,	1,018 81	–	–	–	–	–	–	–	–	–
Charlemont,	1,293 81	–	–	–	–	–	–	–	–	–
Colrain,	1,258 41	–	–	–	–	–	–	–	–	–
Conway,	1,018 81	–	–	–	–	–	–	–	–	–
Deerfield,	1,108 41	65 50	–	–	–	–	–	–	$52,437 42	$2,060 62
Erving,	1,018 81	–	–	–	–	–	–	–	–	–
Gill,	1,218 81	–	1	755	–	–	$54,778 00	–	1,079,453 00	16,060 00
Greenfield,	–	–	–	–	1	8	–	–	–	–
Hawley,	1,054 21	–	–	–	–	–	–	–	–	–
Heath,	1,075 05	–	–	–	–	–	–	–	–	–
Leverett,	1,075 05	–	–	–	–	–	–	–	–	–
Leyden,	1,150 05	–	–	–	–	–	–	–	–	–
Monroe,	575 00	–	–	–	–	–	–	–	–	–
Montague,	–	–	–	–	1	167	–	–	–	–
New Salem,	1,293 80	–	–	–	–	–	–	–	2,500 00	125 00
Northfield,	725 04	–	1	480	–	–	44,309 34	–	911,371 24	50,416 32
Orange,	–	–	–	–	–	–	–	–	–	–
Rowe,	1,054 20	15 00	–	–	–	–	–	–	–	–
Shelburne,	868 80	–	1	152	–	–	–	–	–	–
Shutesbury,	1,075 04	–	–	–	–	–	–	–	–	–

Sunderland,	1,458 41	–	–	–	–	–	–	–	–	–
Warwick,	1,458 40	–	–	–	–	–	–	–	–	–
Wendell,	1,293 80	–	–	–	–	–	–	–	–	–
Whately,	1,075 04	–	–	–	–	–	–	–	–	–
Totals,	$25,644 98	$99 50	3	1,387	2	175	$99,087 34	–	$2,045,761 66	$68,661 94

HAMPDEN COUNTY — CONCLUDED.

Agawam,	$1,108 41	$178 47	–	–	2	111	–	$650 00	–	–
Blandford,	1,075 05	–	–	–	–	–	–	–	–	–
Brimfield,	1,218 81	–	–	–	–	–	–	–	$88,546 57	$5,440 87
Chester,	1,018 81	–	–	–	–	–	–	–	–	–
Chicopee,	–	–	1	34	4	1,366	–	–	–	–
East Longmeadow,	1,258 41	–	–	–	–	–	–	–	–	–
Granville,	1,293 81	–	–	–	–	–	–	–	–	–
Hampden,	1,218 81	–	–	–	–	–	–	–	–	–
Holland,	1,075 05	–	–	–	–	–	–	–	–	–
Holyoke,	–	370 00	–	–	11	5,067	–	4,525 00	–	–
Longmeadow,	1,108 41	–	–	–	1	26	–	–	–	–
Ludlow,	–	50 00	–	–	1	28	–	–	–	–
Monson,	1,108 41	181 50	1[1]	124	1	4	$3,976 00	300 00	103,291 00	5,232 49
Montgomery,	1,218 81	–	–	–	–	–	–	–	–	–
Palmer,	–	–	–	–	–	–	–	–	–	–
Russell,	1,018 80	–	–	–	–	–	–	–	–	–
Southwick,	875 04	–	–	–	–	–	–	–	–	–
Springfield,	–	617 48	–	–	8	2,138	–	–	–	–
Tolland,	1,293 80	–	–	–	–	–	–	–	–	–
Wales,	1,218 80	–	–	–	–	–	–	–	–	–
Westfield,	–	–	–	–	1	330	–	–	–	–
West Springfield,	–	–	–	–	–	–	–	–	–	–
Wilbraham,	1,108 40	50 00	1	137	–	–	5,070 00	–	60,000 00	1,030 00
Totals,	$18,217 63	$1,447 45	3	295	29	9,070	$9,046 00	$5,475 00	$251,837 57	$11,703 36

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[1] United with high school.

HAMPSHIRE COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1908.	No. of public schools.	School Census Data Sept. 1, 1908.		School Membership, Attendance and Graduation Data for the School Year.							
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.	No. graduated from grammar schools.
Amherst, . .	5,313	$3,664,075	18	757	580	940	2	180	585	843	762	.90	34
Belchertown, .	2,088	915,955	19	398	297	435	–	51	299	379	354	.93	15
Chesterfield, . .	563	309,423	5	90	62	94	–	8	65	74	73	.99	9
Cummington, .	740	326,427	8	134	104	128	–	3	106	121	116	.96	8
Easthampton, .	6,808	5,261,328	30	1,250	933	1,228	1	57	914	1,067	992	.93	35
Enfield, . .	973	676,170	7	156	136	160	3	1	136	156	140	.90	6
Goshen, . .	277	177,190	4	70	49	64	1	1	48	54	47	.88	4
Granby, . .	747	493,858	5	137	101	115	–	16	78	108	96	.90	8
Greenwich, . .	475	262,112	2	92	67	57	–	–	48	49	45	.92	6
Hadley, . .	1,895	1,318,489	12	319	235	329	–	30	222	303	280	.93	15
Hatfield, . .	1,779	1,340,420	10	260	193	260	1	4	180	231	209	.91	3
Huntington, . .	1,451	616,485	10	294	210	336	2	43	228	299	267	.89	18
Middlefield, . .	399	188,732	7	84	69	128	3	3	90	90	84	.93	3
Northampton, .	19,957	13,497,741	79	3,346	2,682	3,039	146	298	1,926	2,739	2,538	.92	106
Pelham, . .	460	236,535	4	98	80	100	–	1	83	75	67	.89	4
Plainfield, . .	382	174,571	5	60	44	63	–	–	45	54	49	.90	4
Prescott, . .	322	185,357	4	60	45	62	–	59	51	52	48	.92	4

Southampton, .	927	492,904	8	160	136	167	4	2	131	137	120	.88	7
South Hadley, .	5,054	2,704,463	24	915	609	976	11	70	626	901	830	.92	51
Ware, . . .	8,594	4,591,595	28	1,530	1,055	1,159	6	119	782	1,032	970	.94	47
Westhampton, .	466	224,725	6	106	92	123	1	5	90	100	90	.90	7
Williamsburg, .	1,943	952,961	14	411	308	429	7	30	331	390	358	.92	27
Worthington, .	614	322,499	6	110	76	103	–	7	80	92	83	.89	5
Totals, . .	62,227	$38,934,015	315	10,837	8,163	10,495	188	988	7,144	9,346	8,618	.92	426

HAMPSHIRE COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.						
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.													
	Men.	Women.	In high schools.	In elementary schools.	No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.
Amherst, . .	2	21	6	3	7	$120 00	$49 00	160–7	8–18	1	6	206	60	40	9–12	$6,600 00
Belchertown, .	2	18	2	–	3	70 22	32 85	151–10	7–19	1	2	79	12	10	9	1,829 67
Chesterfield, .	1	4	–	1	–	40 00	40 75	41–13	8–6	–	–	–	–	–	–	–
Cummington, .	1	7	–	–	1	40 00	36 72	67–4	8–8	–	–	–	–	–	–	–
Easthampton, .	1	33	4	4	13	130 00	44 45	267–2	8–18	1	4	74	40	10	9–16	3,662 00
Enfield, . .	–	7	–	–	2	–	41 07	63	9	–	–	–	–	–	–	–
Goshen, . .	–	4	–	–	6	–	44 00	32	8	–	–	–	–	–	–	–
Granby, . .	1	5	2	1	3	75 00	40 70	44–14	8–18	1	2	20	7	5	9–14	1,436 28
Greenwich, .	–	2	–	–	1	–	44 00	17–12	8–16	–	–	–	–	–	–	–
Hadley, . .	–	14	3	–	4	–	41 40	105–3	8–15	1[1]	3	31	16	3	9–15	3,200 00
Hatfield, . .	–	10	–	1	6	–	41 60	90	9	–	–	–	–	–	–	–
Huntington, .	1	12	4	–	7	77 50	37 66	92–15	9–5	1	4	87	34	9	9–18	2,824 04
Middlefield, .	–	7	–	–	3	–	36 18	59–10	8–8	–	–	–	–	–	–	–
Northampton, .	6	92	13	2	41	130 00	51 35	771–15	9–15	1	14	328	110	42	9–14	15,907 57
Pelham, . .	–	4	–	–	2	–	40 00	35–10	8–17	–	–	–	–	–	–	–
Plainfield, . .	–	5	–	–	4	–	36 11	40	8	–	–	–	–	–	–	–
Prescott, . .	–	7	–	–	–	–	33 43	35–14	8–19	–	–	–	–	–	–	–

Southampton, .	–	8	–	1	3	–	37 17	70–4	8–15	–	–	–	–	–	–	–
South Hadley, .	1	30	5	2	18	120 00	43 85	221–6	9–4	1	5	128	32	11	9–14	3,932 16
Ware, . .	2	31	5	1	10	125 00	52 41	255–17	9–2	1	6	127	41	27	9–10	6,771 00
Westhampton, .	–	6	–	–	2	–	35 33	50–12	8–8	–	–	–	–	–	–	–
Williamsburg, .	2	14	3	1	5	55 75	35 93	128	9–2	2	3	46	10	10	10 10	2,139 84
Worthington, .	1	5	–	–	2	36 00	37 60	53–12	8–18	–	–	–	–	–	–	–
Totals, .	21	346	47	17	143	$97 40	$44 51	2,855	9–1	11	49	1,126	362	167	9–14	$48,302 56

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[1] Hopkins Academy.

HAMPSHIRE COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Amherst, . .	$13,360 78	$794 62	$2,673 86	$170 00	$1,575 00	$969 50	$673 88	$20,217 64	$2,553 83	$17,663 81
Belchertown, .	6,072 07	52 00	630 17	159 90	1,080 00	315 86	57 06	8,367 06	2,892 31	5,474 75
Chesterfield, .	2,162 80	588 50	143 69	35 00	375 00	91 86	57 00	3,453 85	1,840 38	1,613 47
Cummington, .	3,275 20	86 90	256 98	40 00	428 55	207 68	27 08	4,322 39	2,758 03	1,564 36
Easthampton, .	15,491 95	992 13	3,285 48	97 45	1,418 96	2,104 12	576 71	23,966 80	1,223 56	22,743 24
Enfield, . .	2,923 00	942 60	541 22	95 00	420 00	326 91	35 00	5,283 73	2,182 05	3,101 68
Goshen, . .	1,562 25	20 80	57 20	8 00	214 30	116 32	30 01	2,008 88	1,295 78	713 10
Granby, . .	2,803 00	967 25	373 05	90 00	437 40	352 88	348 10	5,371 68	2,431 08	2,940 60
Greenwich, . .	1,299 40	620 20	93 98	42 00	168 39	160 52	24 16	2,408 65	1,468 15	940 50
Hadley, . .	5,915 00	633 48	1,427 43	8 00	585 23	834 29	279 28	9,682 71	4,414 08	5,268 63
Hatfield, . .	3,941 71	118 05	1,125 19	60 00	555 60	492 29	77 12	6,369 96	1,641 18	4,728 78
Huntington, .	5,534 23	530 70	971 18	42 63	529 99	548 79	162 63	8,320 15	2,723 76	5,596 39
Middlefield, .	2,515 00	19 50	152 83	23 25	294 17	143 11	56 33	3,204 19	1,821 55	1,382 64
Northampton, .	57,052 58	799 75	14,619 80	789 04	2,100 00	4,598 45	1,630 74	81,590 36	2,303 45	79,286 91
Pelham, . .	1,505 60	67 50	50 83	–	200 00	46 66	17 60	1,888 19	942 50	945 69
Plainfield, . .	1,693 90	–	142 43	24 40	267 85	119 11	40 07	2,287 76	1,599 37	688 39
Prescott, . .	1,342 00	460 00	153 49	34 00	331 13	103 91	54 95	2,479 48	1,891 61	587 87

Southampton, .	3,384 82	–	319 29	73 00	131 58	109 78	5 56	4,024 03	1,991 03	2,033 00
South Hadley, .	13,703 03	1,402 75	3,746 15	104 50	1,312 44	1,491 46	1,173 72	22,934 05	1,135 94	21,798 11
Ware, . .	19,861 25	1,170 11	6,040 06	–	2,000 00	1,537 34	1,203 83	31,812 59	248 00	31,564 59
Westhampton, .	2,316 05	–	159 50	44 00	135 25	116 65	11 40	2,782 85	1,599 90	1,182 95
Williamsburg, .	5,682 15	387 00	1,133 27	230 00	750 00	461 42	265 54	8,909 38	3,105 51	5,803 87
Worthington, .	2,242 33	41 00	180 75	75 00	375 00	416 33	83 97	3,414 38	1,899 54	1,514 84
Totals, .	$175,640 10	$10,694 84	$38,277 83	$2,245 17	$15,685 84	$15,665 24	$6,891 74	$265,100 76	$45,962 59	$219,138 17

HAMPSHIRE COUNTY — CONTINUED.

TOWNS AND CITIES.	Expenditures for School Buildings.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	Local Funds whose Income must be appropriated to the Public Schools.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Amherst,	–	–	$1,187 41	$1,187 41	–	$1,187 41	$18,851 22	–	–	$471 93
Belchertown,	–	$281 75	106 70	388 45	$18 35	370 10	5,844 85	$6,000 00	$242 40	–
Chesterfield,	–	45 25	60 15	105 40	–	105 40	1,718 87	500 00	30 60	–
Cummington,	–	–	34 29	34 29	–	34 29	1,598 65	–	–	102 73
Easthampton,	–	47 50	740 77	788 27	–	788 27	23,531 51	–	–	332 17
Enfield,	–	–	167 06	167 06	–	167 06	3,268 74	–	–	–
Goshen,	–	–	6 17	6 17	–	6 17	719 27	–	–	–
Granby,	–	–	176 13	176 13	–	176 13	3,116 73	–	–	–
Greenwich,	–	–	17 25	17 25	–	17 25	957 75	500 00	30 00	–
Hadley,	–	498 20	278 94	777 14	–	777 14	6,045 77	–	–	–
Hatfield,	–	205 95	449 00	654 95	–	654 95	5,383 73	–	–	158 00
Huntington,	–	–	448 37	448 37	–	448 37	6,044 76	–	–	–
Middlefield,	–	–	200 95	200 95	127 50	73 45	1,456 09	–	–	–
Northampton,	–	540 00	2,750 06	3,290 06	–	3,290 06	82,576 97	3,000 00	113 54	1,232 50
Pelham,	–	–	95 20	95 20	–	95 20	1,040 89	–	–	41 35
Plainfield,	–	–	16 49	16 49	–	16 49	704 88	–	–	4 50
Prescott,	–	–	286 02	286 02	5 00	281 02	868 89	–	–	–

Southampton,	–	–	112 94	112 94	–	112 94	2,145 94	–	–	158 00
South Hadley,	–	78 00	1,022 47	1,100 47	–	1,100 47	22,898 58	–	–	401 00
Ware,	–	2,277 93	812 70	3,090 63	–	3,090 63	34,655 22	–	–	–
Westhampton,	–	–	17 05	17 05	–	17 05	1,200 00	–	–	–
Williamsburg,	–	2,531 29	208 73	2,740 02	–	2,740 02	8,543 89	14,104 00	720 80	201 30
Worthington,	–	–	81 15	81 15	–	81 15	1,595 99	–	–	306 91
Totals,	–	$6,505 87	$9,276 00	$15,781 87	$150 85	$15,631 02	$234,769 19	$24,104 00	$1,137 34	$3,410 39

HAMPSHIRE COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1909.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Amherst,	–	–	–	–	–	–	–	–	–	–
Belchertown,	$1,258 41	–	–	–	–	–	–	–	–	–
Chesterfield,	1,218 81	–	–	–	–	–	–	–	–	–
Cummington,	1,150 05	$7 75	–	–	–	–	–	–	–	–
Easthampton,	–	–	1	–	1	136	–	–	–	–
Enfield,	875 05	–	–	–	–	–	–	–	–	–
Goshen,	979 21	3 00	–	–	–	–	–	–	–	–
Granby,	1,458 41	–	–	–	–	–	–	–	–	–
Greenwich,	1,218 81	–	–	–	1	36	–	–	–	–
Hadley,	868 81	–	–	–	–	–	–	–	$105,000 00	$2,350 00
Hatfield,	868 81	133 48	1	35	–	–	$524 00	–	45,000 00	2,500 00
Huntington,	1,258 41	–	–	–	–	–	–	–	–	–
Middlefield,	1,075 05	–	–	–	–	–	–	–	–	–
Northampton,	–	–	1	150	4	765	–	–	392,824 42	13,475 00
Pelham,	–	–	–	–	–	–	–	–	–	–
Plainfield,	1,075 04	4 50	–	–	–	–	–	–	–	–
Prescott,	1,218 80	–	–	–	–	–	–	–	–	–

Southampton,	1,075 04	–	–	–	–	–	–	–	–	–
South Hadley,	–	–	–	–	–	–	–	–	–	–
Ware,	–	–	–	–	1	415	–	–	–	–
Westhampton,	1,218 80	–	–	–	–	–	–	–	–	–
Williamsburg,	1,018 80	–	–	–	–	–	–	–	–	–
Worthington,	1,075 04	–	–	–	–	–	–	–	–	–
Totals,	$18,911 35	$148 73	3	185	7	1,352	$524 00	–	$542,824 42	$18,325 00

MIDDLESEX COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1908.	No. of public schools.	SCHOOL CENSUS DATA SEPT. 1, 1903.		SCHOOL MEMBERSHIP, ATTENDANCE AND GRADUATION DATA FOR THE SCHOOL YEAR.							
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.	No. graduated from grammar schools.
Acton, . . .	2,089	$1,807,480	11	339	249	360	–	5	263	317	292	.92	21
Arlington, . .	9,668	11,105,046	45	1,854	1,480	2,093	–	227	1,415	1,883	1,755	.93	102
Ashby, . . .	865	496,920	5	139	98	138	–	24	86	131	120	.92	6
Ashland, . .	1,597	1,175,055	10	283	227	364	–	45	234	317	297	.94	19
Ayer, . . .	2,386	2,038,818	10	385	279	510	2	70	310	462	433	.94	35
Bedford, . .	1,208	1,288,168	4	172	131	153	–	2	123	139	125	.91	15
Belmont, . .	4,360	6,078,650	21	855	577	882	–	88	595	770	697	.91	44
Billerica, . .	2,843	2,274,444	16	533	397	581	3	42	416	508	466	.92	21
Boxborough, . .	324	248,944	4	66	43	55	–	2	44	50	46	.92	12
Burlington, . .	588	616,300	3	80	62	72	1	2	51	73	66	.92	6
Cambridge, . .	97,434	106,881,075	322	16,594	11,685	16,396	912	1,489	10,238	15,214	14,144	.93	753
Carlisle, . .	523	441,445	3	97	69	97	–	3	72	89	79	.89	7
Chelmsford, . .	4,254	4,088,385	26	835	589	871	14	78	621	777	713	.92	29
Concord, . .	5,421	6,379,275	21	896	548	1,094	–	224	654	1,031	973	.94	53
Dracut, . .	3,537	2,297,999	16	636	481	536	–	7	414	500	463	.93	26
Dunstable, . .	412	298,642	3	82	64	78	–	2	65	73	66	.90	3
Everett, . .	29,111	24,832,800	141	6,250	4,899	6,580	11	623	4,420	6,304	5,933	.94	321
Framingham, .	11,548	10,087,550	51	1,884	1,470	2,204	31	249	1,449	2,161	1,920	.92	132
Groton, . .	2,253	3,089,963	10	312	229	342	–	51	231	326	298	.91	30
Holliston, . .	2,663	1,575,757	13	506	384	549	–	57	373	487	456	.94	20

Hopkinton, . .	2,585	1,546,105	13	436	324	497	1	55	325	461	433	.94	27
Hudson, . .	6,217	3,509,595	21	1,102	762	1,135	4	89	806	1,067	1,008	.94	80
Lexington, . .	4,530	6,884,670	21	830	674	908	7	117	592	830	767	.92	49
Lincoln, . .	1,122	2,810,326	5	156	104	115	–	6	84	107	95	.89	4
Littleton, . .	1,219	1,032,080	7	205	151	243	–	31	152	218	203	.93	16
Lowell, . .	94.889	76,415,792	272	14,594	10,555	13,357	647	1,047	8,191	11,361	10,390	.91	518
Malden, . .	38,037	33,601,500	153	8.121	5,337	7,399	1	943	4,713	7,001	6,532	.93	425
Marlborough, .	14,073	10,053,075	53	2,962	2,067	2,733	42	142	1,725	2,413	2,258	.93	122
Maynard, . .	5,811	3,783,980	20	749	538	876	–	63	595	809	757	.94	43
Medford, . .	19,686	22,800,000	92	3,944	2,802	4,711	208	318	3,088	4,156	3,815	.92	228
Melrose, . .	14,295	15,972,960	66	2,753	2,084	3,266	51	521	1,957	3,020	2,841	.94	171
Natick, . .	9,609	7,249,600	40	1,650	1,173	1,866	–	244	1,178	1,715	1,612	.94	104
Newton, . .	36,827	68,933,800	162	6,669	4,747	6,927	279	1,073	3,669	6,225	5,727	.92	319
North Reading, .	903	676,639	4	156	112	148	2	2	112	132	123	.93	11
Pepperell, . .	3,268	2,238,994	18	590	488	710	5	54	477	626	573	.92	37
Reading, . .	5,682	5,238,622	23	1,005	695	1,210	7	192	772	1,119	1,028	.92	86
Sherborn, . .	1,379	1,410,381	7	213	158	207	–	6	171	187	171	.91	14
Shirley, . .	1,692	1,098,277	8	319	236	322	2	24	248	281	255	.91	16
Somerville, . .	69,272	63,158,400	245	12,217	8,759	14,575	341	1,809	9,123	12,058	11,334	.94	742
Stoneham, . .	6,332	5,027,334	27	1,099	772	1,269	3	156	917	1,133	1,062	.94	51
Stow, . . .	1,027	893,040	6	198	148	220	–	20	145	203	195	.94	17
Sudbury, . .	1,159	1,244,405	7	169	112	199	–	23	129	182	172	.94	15
Tewksbury, . .	4,415	1,145,979	6	245	187	199	1	3	152	182	165	.91	19
Townsend, . .	1,772	1,152,294	9	279	209	320	–	49	224	281	261	.93	17
Tyngsborough, .	768	524,680	5	144	100	143	–	5	105	121	111	.91	4
Wakefield, . .	10,268	8,603,573	51	1,922	1,357	2,383	33	307	1,422	2,140	2,037	.94	133
Waltham, . .	26,282	24,910,660	75	3,734	2,657	3,304	82	441	2,018	3,148	2,941	.93	197
Watertown, . .	11,258	13,888,216	37	2,005	1.378	1,776	16	191	1,211	1,661	1,539	.93	88
Wayland, . .	2,220	2,212,099	11	340	235	407	3	58	315	359	329	.94	16
Westford, . .	2,413	1,752.449	16	435	346	467	–	36	331	399	355	.89	44
Weston, . .	2,091	6,779,019	7	311	225	311	1	51	195	294	277	.94	19
Wilmington, . .	1,670	1,320,895	11	364	297	413	3	53	274	375	346	.92	20
Winchester, . .	8,242	11,516,400	37	1,593	1,134	1,797	83	198	1,090	1,669	1,521	.91	98
Woburn, . .	14,402	11,190,189	59	3,488	2,164	3,035	41	307	1,891	2,846	2,661	.93	191
Totals, . .	608,499	$607,678,744	2,329	107,795	77,048	111,403	2,837	11,924	70,471	100,391	93,236	.93	5,596

MIDDLESEX COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.						
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.												
Acton,	–	11	1	–	7	–	$50 18	101–12	9–4	1	1	66	29	4	10	$3,363 10
Arlington,	3	57	9	2	31	$156 67	69 63	423	9–8	1	12	349	114	32	9–8	17,574 95
Ashby,	1	5	2	–	3	80 00	41 20	43	8–12	1	2	33	–	3	10	1,484 87
Ashland,	1	11	3	–	6	92 50	43 00	88–18	8–18	1	3	55	18	4	9–15	2,600 00
Ayer,	1	12	3	–	7	140 00	48 83	94–17	9–8	1	4	96	37	15	10	4,582 50
Bedford,	–	4	–	–	4	–	51 13	36–12	9–3	–	–	–	–	–	–	–
Belmont,	1	24	4	1	14	160 00	59 08	195–6	9–6	1	5	92	37	12	9–6	5,900 00
Billerica,	1	14	–	2	5	78 94	46 30	158–15	9–6	1[1]	3	57	18	12	9–14	3,140 57
Boxborough,	–	4	–	1	2	–	40 00	36	9	–	–	–	–	–	–	–
Burlington,	–	3	–	–	2	–	44 66	27–8	9–3	–	–	–	–	–	–	–
Cambridge,	50	403	55	26	246	165 11	70 07	3,026–18	9–8	3	72	1,724	624	187	9–8 9–8 9–8	77,640 49
Carlisle,	–	3	–	–	2	–	41 33	26–9	8–16	–	–	–	–	–	–	–
Chelmsford,	2	28	6	4	18	102 50	48 89	241–13	9–6	2	6	66	29	19	9–15 9–15	3,600 00
Concord,	5	30	12	1	15	105 00	64 55	194–6	9–5	1	12	315	94	60	9–19	14,959 17
Dracut,	–	17	–	–	14	–	46 23	149–3	9–6	–	–	–	–	–	–	–
Dunstable,	–	3	–	–	2	–	40 73	26–14	8–18	–	–	–	–	–	–	–
Everett,	12	174	12	1	101	140 00	63 64	1,336–6	9–4	1	20	584	263	76	9–11	28,479 43
Framingham,	5	55	6	1	40	138 66	57 24	459–11	9	1	9	279	120	29	9–11	13,186 00
Groton,	1	13	3	1	3	130 00	48 44	89–10	8–19	1	4	72	21	11	9–6	3,998 72
Holliston,	1	14	3	–	5	100 00	45 27	114–8	8–16	1	3	57	14	9	9–13	2,610 00

Hopkinton, .	–	15	1	–	5	–	47 00	111	8–11	1	3	68	32	13	9–2	3,000 00
Hudson, .	3	25	8	–	13	113 33	48 26	201–15	9–7	1	7	204	83	12	9–13	8,160 00
Lexington, .	2	24	6	2	8	135 00	60 41	196	9–10	1	7	113	39	12	9–10	10,248 15
Lincoln, .	–	5	–	–	1	–	55 86	45–16	9–3	–	–	–	–	–	–	–
Littleton, .	1	8	3	–	6	114 10	51 10	62–15	8–19	1	3	46	19	5	10	2,619 53
Lowell, .	24	316	21	13	112	177 14	68 89	2,529–12	9–6	1	35	1,102	446	164	9–6	58,789 16
Malden, .	24	188	20	6	115	165 32	69 49	1,383–8	9	1	33	811	294	105	8–11	44,015 13
Marlborough, .	7	65	6	1	7	99 28	53 25	469	8–16	1	12	390	146	27	9–8	13,390 00
Maynard, .	1	24	5	–	20	119 50	54 74	194–17	9–16	1	5	127	27	10	9–16	4,275 00[2]
Medford, .	15	104	15	8	32	146 92	70 10	844–19	9–1	1	19	568	226	50	9–1	26,404 25
Melrose, .	9	82	16	7	60	134 00	65 00	617–5	9–7	1	19	541	158	74	9–10	24,355 94
Natick, .	6	46	8	2	28	121 85	53 11	371–11	9–5	1	10	262	80	34	9–14	10,650 00
Newton, .	20	232	24	17	103	199 44	66 76	1,508	9–8	1	41	1,005	325	156	9–8	64,171 09
North Reading, .	–	4	–	–	3	–	47 00	35–18	8–19	–	–	–	–	–	–	–
Pepperell, .	1	19	3	–	7	126 31	43 77	163–6	9–2	1	3	96	38	20	9–2	3,056 90
Reading, .	2	32	10	–	19	165 00	53 75	214	9–6	1	11	273	89	48	9–11	13,392 08
Sherborn, .	–	6	2	–	5	–	44 00	62–15	8–17	1[3]	2	34	11	–	8–15	1,789 00
Shirley, .	1	8	2	–	5	95 00	46 08	75–2	9–7	1	2	33	12	3	9–16	2,110 92
Somerville, .	34	311	38	10	138	171 61	72 77	2,238–4	9	2	57	1,685	617	235	9–1 9–1	82,944 61
Stoneham, .	1	30	5	1	9	180 00	60 68	243	9	1	5	161	44	33	9	6,700 00
Stow, .	1	7	2	–	4	70 83	42 00	54	9	1	2	34	17	6	9–10	1,769 00
Sudbury, .	1	7	2	–	4	83 50	58 50	64–20	9–6	1	2	24	16	4	9–11	1,724 96
Tewksbury, .	–	6	–	–	5	–	46 00	57–12	9–12	–	–	–	–	–	–	–
Townsend, .	1	10	3	–	5	95 00	42 90	97–10	8–17	1	3	53	12	8	9–16	2,084 00
Tyngsborough, .	–	5	–	1	2	–	44 00	48–2	9–12	–	–	–	–	–	–	–
Wakefield, .	6	62	10	1	30	110 50	53 51	454–11	9–1	1	13	359	127	58	9–4	13,533 98
Waltham, .	9	92	13	4	47	147 77	64 49	704–5	9–7	1	17	459	161	56	9–7	25,979 00
Watertown, .	6	49	9	1	18	154 70	67 40	355	9–1	1	10	212	73	26	9–10	11,582 54
Wayland, .	2	12	3	1	7	112 93	51 59	102	9–3	1	2	65	19	10	9–12	4,000 00
Westford, .	2	13	3	–	9	72 77	46 12	144–15	9–10	1[4]	3	54	22	2	9–15	2,420 75
Weston, .	1	10	4	–	4	222 22	69 72	63	9	1	4	59	20	8	9	6,100 00
Wilmington, .	1	12	3	–	3	100 00	44 01	99–19	9–2	1	3	77	31	10	9–14	2,972 00
Winchester, .	3	47	6	3	21	163 33	66 21	353–1	9–10	1	9	215	98	33	9–13	11,949 14
Woburn, .	5	67	6	2	16	134 00	54 71	539–4	9–2	1	11	305	186	52	9–8	12,920 26
Totals, .	273	2,828	376	120	1,398	$154 16	$64 43	21,576–8	9–5	48	509	13,280	4,886	1,747	9–10	$660,227 19

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[1] Howe Academy.

[2] High school statistics include ninth grade.

[3] United with Sawin Academy.

[4] Westford Academy.

MIDDLESEX COUNTY — CONTINUED.

TOWNS AND CITIES.	Expenditures for the Support of Public Schools.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Acton, . .	$9,328 58	$1,397 40	$853 86	$25 98	$513 35	$815 52	$125 00	$13,059 69	$2,567 62	$10,492 07
Arlington, . .	44,504 57	–	8,593 91	350 00	2,500 00	5,039 99	1,100 41	62,088 88	1,107 32	60,981 56
Ashby, . .	2,765 00	1,974 40	614 37	6 00	332 00	307 97	135 39	6,135 13	2,710 81	3,424 32
Ashland, . .	5,525 30	1,133 50	1,609 15	65 00	650 00	440 62	229 46	9,653 03	916 33	8,736 70
Ayer, . .	7,550 75	75 00	1,763 66	–	825 00	1,032 57	170 90	11,417 88	1,515 63	9,902 25
Bedford, . .	4,104 18	1,167 90	996 91	–	630 00	277 94	145 57	7,322 50	2,191 88	5,130 62
Belmont, . .	18,506 43	280 00	4,678 00	27 59	1,500 00	1,597 50	830 24	27,419 76	290 00	27,129 76
Billerica, . .	7,671 00	977 50	2,301 10	180 00	750 00	789 66	353 56	13,022 82	1,868 31	11,154 51
Boxborough, .	2,012 00	222 80	71 80	26 00	275 00	123 79	52 30	2,783 69	1,548 81	1,234 88
Burlington, .	1,678 73	575 00	307 05	–	247 50	143 85	71 56	3,023 69	1,185 00	1,838 69
Cambridge, .	348,160 78	324 00	78,526 06	8,101 00	4,283 00	31,478 49	5,354 54	476,227 87	–	476,227 87
Carlisle, . .	1,341 88	1,237 10	288 03	3 00	206 33	102 26	56 55	3,235 15	1,427 43	1,807 72
Chelmsford, .	15,369 40	1,061 05	3,508 02	231 50	1,215 42	1,088 49	637 59	23,111 47	1,150 05	21,961 42
Concord, . .	25,375 50	3,479 25	4,219 43	209 67	650 00	2,515 78	1,755 58	38,205 21	7,052 94	31,152 27
Dracut, . .	11,223 30	874 90	2,655 50	50 00	999 96	891 61	398 18	17,093 45	1,944 12	15,149 33
Dunstable, . .	1,219 00	1,149 70	516 80	–	155 83	96 21	35 82	3,173 36	1,645 30	1,528 06
Everett, . .	125,974 09	–	23,534 11	1,358 55	2,620 00	15,183 92	6,735 22	175,405 89	253 00	175,152 89
Framingham, .	39,014 00	2,679 15	7,403 93	210 72	2,000 00	3,486 02	2,652 11	57,445 93	605 04	56,840 89
Groton, . .	7,636 50	1,135 20	1,307 43	15 00	250 00	690 01	718 94	11,753 08	203 40	11,549 68
Holliston, . .	7,010 25	1,341 50	1,488 52	3 60	563 00	854 91	237 01	11,498 79	1,739 49	9,759 30

Hopkinton, .	8,162 00	851 50	1,362 48	8 00	940 00	467 01	278 59	12,069 58	2,106 45	9,963 13
Hudson, . .	16,647 55	896 26	4,194 32	163 00	1,500 00	1,543 50	1,292 81	26,237 44	456 36	25,781 08
Lexington, . .	19,651 90	2,952 05	4,836 03	285 00	900 00	2,291 15	1,542 72	32,458 85	149 00	32,309 85
Lincoln, . .	4,331 45	1,919 85	401 43	–	480 00	341 75	533 14	8,007 62	138 52	7,869 10
Littleton, . .	5,166 54	1,380 50	974 35	–	346 30	639 92	101 93	8,609 54	2,147 41	6,462 13
Lowell, . .	273,463 14	325 00	73,496 61	5,529 84	3,000 00	14,235 95	8,053 20	378,103 74	5,342 50	372,761 24
Malden, . .	161,237 20	–	31,592 00	2,769 77	2,700 00	18,606 48	773 63	217,679 08	–	217,679 08
Marlborough, .	41,015 90	1,377 88	7,145 19	762 50	2,040 00	3,498 32	1,314 32	57,154 11	105 98	57,048 13
Maynard, . .	13,383 05	341 25	3,110 90	92 00	695 71	1,340 96	1,274 75	20,238 62	–	20,238 62
Medford, . .	93,655 10	–	17,720 00	2,100 00	2,800 00	6,674 39	4,436 28	127,385 77	201 00	127,184 77
Melrose, . .	67,256 16	560 00	13,151 21	620 00	2,450 00	5,599 76	2,250 42	91,887 55	–	91,887 55
Natick, . .	32,542 06	1,315 96	7,085 20	90 00	2,200 00	2,334 39	2,115 77	47,683 38	592 57	47,090 81
Newton, . .	219,056 32	2,146 30	32,436 80	3,000 00	5,000 00	24,043 95	2,352 30	288,035 67	–	288,035 67
North Reading, .	3,785 34	995 00	685 96	86 95	183 27	208 56	50 00	5,995 08	2,951 24	3,043 84
Pepperell, . .	9,570 62	908 00	2,732 08	174 80	750 00	728 56	268 11	15,132 17	1,658 00	13,474 17
Reading, . .	22,620 58	702 00	5,838 68	40 00	1,120 00	2,456 59	2,471 08	35,248 93	2,249 32	32,999 61
Sherborn, . .	2,623 30	1,628 00	640 36	12 50	300 00	256 29	127 65	5,588 10	1,030 74	4,557 36
Shirley, . .	4,341 80	1,527 52	804 39	100 00	457 14	400 79	128 75	7,760 39	2,175 54	5,584 85
Somerville, . .	289,190 45	–	44,373 88	2,207 50	3,003 00	20,940 26	5,436 89	365,151 98	–	365,151 98
Stoneham, . .	20,486 82	143 00	5,175 59	186 51	1,260 00	2,008 51	1,217 41	30,477 84	165 37	30,312 47
Stow, . .	3,749 65	1,314 00	718 35	100 00	418 75	582 60	41 00	6,924 35	2,616 75	4,307 60
Sudbury, . .	4,471 06	2,149 12	968 49	100 00	450 00	479 62	139 77	8,758 06	1,952 24	6,805 82
Tewksbury, . .	5,262 10	910 25	809 84	87 00	600 00	293 11	217 89	8,180 19	2,515 77	5,664 42
Townsend, . .	5,109 50	1,448 00	914 49	3 00	839 55	605 36	174 09	9,093 99	1,861 68	7,232 31
Tyngsborough, .	2,825 60	1,564 70	534 55	26 00	199 92	167 53	85 45	5,403 75	2,102 78	3,300 97
Wakefield, . .	42,374 15	–	8,315 52	–	1,800 00	3,711 28	1,232 07	57,433 02	2,510 26	54,922 76
Waltham, . .	79,270 00	1,196 88	16,127 29	1,000 00	2,375 00	5,692 71	1,451 49	107,113 37	115 50	106,997 87
Watertown, .	44,091 39	325 00	2,359 07	404 00	1,850 00	2,530 19	2,957 24	54,516 89	–	54,516 89
Wayland, . .	8,914 81	1,956 90	1,762 79	168 60	783 34	610 46	233 11	14,430 01	1,891 60	12,538 41
Westford, . .	8,460 50	1,256 70	1,676 49	6 25	800 00	592 82	177 08	12,969 84	1,733 40	11,236 44
Weston, . .	9,394 38	4,076 50	2,490 64	450 00	200 00	813 07	2,127 06	19,551 65	–	19,551 65
Wilmington, .	6,841 94	154 00	1,457 85	150 00	900 00	785 29	135 25	10,424 33	2,204 99	8,219 34
Winchester, .	36,071 87	573 00	8,254 03	595 00	2,300 00	3,533 05	1,064 70	52,391 65	460 94	51,930 71
Woburn, . .	45,169 22	160 80	9,282 38	1,086 62	2,000 00	3,381 71	893 68	61,974 41	1,146 25	60,828 16
Totals, .	$2,296,164 69	$58,141 27	$458,666 88	$33,268 45	$68,808 37	$199,353 00	$68,745 56	$3,183,148 22	$74,504 64	$3,108,643 58

MIDDLESEX COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Acton, . . .	–	$1,000 00	$273 35	$1,273 35	–	$1,273 35	$11,765 42	–	–	$313 85
Arlington, . . .	$18,135 18	1,000 00	1,715 28	20,850 46	–	20,850 46	81,832 02	$38,181 86	$1,608 17	–
Ashby, . . .	–	–	245 13	245 13	–	245 13	3,669 45	635 00	25 72	–
Ashland, . . .	–	–	232 26	232 26	–	232 26	8,968 96	–	–	313 04
Ayer, ...	–	206 80	634 23	841 03	–	841 03	10,743 28	–	–	272 59
Bedford, . . .	–	–	54 28	54 28	–	54 28	5,184 90	–	–	–
Belmont, . . .	–	16,030 51	1,380 35	17,410 86	–	17,410 86	44,540 62	–	–	–
Billerica, . . .	–	–	705 39	705 39	–	705 39	11,859 90	–	–	372 50
Boxborough, . .	–	–	–	–	–	–	1,234 88	–	–	–
Burlington, . .	–	–	308 90	308 90	–	308 90	2,147 59	–	–	236 21
Cambridge, . . .	36,094 70	3,631 62	33,157 39	72,883 71	–	72,883 71	549,111 58	–	–	–
Carlisle, . . .	7,818 98	138 35	8 25	7,965 58	–	7,965 58	9,773 30	500 00	20 20	125 00
Chelmsford, . .	2,005 02	3,108 87	1,236 54	6,350 43	–	6,350 43	28,311 85	–	–	597 84
Concord, . . .	–	342 35	2,446 21	2,788 56	–	2,788 56	33,940 83	28,300 00	1,372 63	–
Dracut, . . .	–	–	458 63	458 63	–	458 63	15,607 96	3,000 00	117 37	1,242 07
Dunstable, . . .	–	–	50 00	50 00	$34 98	15 02	1,543 08	–	–	–
Everett, . . .	–	6,340 14	8,417 33	14,757 47	–	14,757 47	189,910 36	–	–	–
Framingham, . .	143,502 52	–	3,369 90	146,872 42	–	146,872 42	203,713 31	1,259 00	75 54	1,315 77
Groton, . . .	–	–	499 08	499 08	–	499 08	12,048 76	–	–	–
Holliston, . . .	–	148 25	178 13	326 38	–	326 38	10,085 68	–	–	–

Hopkinton,	–	–	83 82	83 82	–	83 82	10,046 95	5,836 00	233 44	–
Hudson,	–	204 04	1,033 56	1,237 60	–	1,237 60	27,018 68	732 83	29 71	404 27
Lexington,	–	1,286 32	1,219 70	2,506 02	–	2,506 02	34,815 87	–	–	–
Lincoln,	43,004 29	–	149 18	43,153 47	–	43,153 47	51,022 57	1,209 21	48 82	–
Littleton,	–	800 00	474 10	1,274 10	–	1,274 10	7,736 23	3,500 00	210 00	295 39
Lowell,	44,247 43	278 50	45,718 54	90,244 47	–	90,244 47	463,005 71	–	–	–
Malden,	50,636 78	2,535 96	9,245 18	62,417 92	–	62,417 92	280,097 00	–	–	–
Marlborough,	–	2,664 79	1,655 37	4,320 16	1,798 79	2,521 37	59,569 50	5,600 75	270 44	–
Maynard,	–	–	1,801 70	1,801 70	–	1,801 70	22,040 32	–	–	–
Medford,	7,000 00	2,271 86	2,300 34	11,572 20	–	11,572 20	138,756 97	–	–	–
Melrose,	–	–	3,665 65	3,665 65	–	3,665 65	95,553 20	–	–	–
Natick,	–	–	1,843 59	1,843 59	–	1,843 59	48,934 40	–	–	–
Newton,	215,000 00	10,785 94	–	225,785 94	–	225,785 94	513,821 61	–	–	3,600 96
North Reading,	–	–	62 56	62 56	–	62 56	3,106 40	–	–	191 00
Pepperell,	–	–	736 69	736 69	–	736 69	14,210 86	–	–	–
Reading,	–	–	889 56	889 56	–	889 56	33,889 17	–	–	–
Sherborn,	15,914 95	–	68 11	15,983 06	–	15,983 06	20,540 42	–	–	137 83
Shirley,	–	639 39	38 94	678 33	–	678 33	6,263 18	11,040 57	411 02	–
Somerville,	–	18,271 25	17,792 21	36,063 46	–	36,063 46	401,215 44	–	–	–
Stoneham,	–	–	1,191 26	1,191 26	–	1,191 26	31,503 73	–	–	–
Stow,	–	–	199 01	199 01	–	199 01	4,506 61	12,000 00	573 75	169 42
Sudbury,	–	–	22 82	22 82	–	22 82	6,828 64	1,151 00	46 04	317 40
Tewksbury,	–	–	729 43	729 43	–	729 43	6,393 85	–	–	179 88
Townsend,	–	–	308 01	308 01	–	308 01	7,540 32	–	–	–
Tyngsborough,	–	–	64 12	64 12	–	64 12	3,365 09	2,279 16	118 17	–
Wakefield,	–	2,961 17	1,277 83	4,239 00	–	4,239 00	59,161 76	–	–	–
Waltham,	–	4,313 59	5,101 07	9,414 66	–	9,414 66	116,412 53	–	–	–
Watertown,	–	1,565 77	2,976 31	4,542 08	–	4,542 08	59,058 97	–	–	–
Wayland,	–	133 00	16 47	149 47	–	149 47	12,687 88	–	1,200 00	20 81
Westford,	14,665 68	288 27	301 65	15,255 60	–	15,255 60	26,492 04	–	–	–
Weston,	28,067 32	–	243 19	28,310 51	–	28,310 51	47,862 16	–	–	–
Wilmington,	–	–	611 74	611 74	–	611 74	8,831 08	–	–	306 34
Winchester,	–	–	2,979 39	2,979 39	–	2,979 39	54,910 10	2,000 00	72 40	–
Woburn,	5,954 71	2,856 62	3,889 96	12,701 29	–	12,701 29	73,529 45	–	–	–
Totals,	$632,047 56	$83,803 36	$164,061 69	$879,912 61	$1,833 77	$878,078 84	$3,986,722 42	$117,225 38	$6,433 42	$10,412 17

MIDDLESEX COUNTY — Concluded.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1909.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	Academies and Private Schools.				Estimated Amount of Tuition paid in —		Funds whose Income must be appropriated to Academies or Private Schools.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Acton,	$868 81	$40 00	–	–	–	–	–	–	–	–
Arlington,	–	–	–	–	2	38	–	–	–	–
Ashby,	1,258 41	12 24	–	–	–	–	–	–	–	–
Ashland,	1,108 41	–	–	–	–	–	–	–	–	–
Ayer,	793 81	100 00	–	–	–	–	–	–	–	–
Bedford,	725 05	–	–	–	–	–	–	–	–	–
Belmont,	–	200 00	1	30	–	–	$500 00	–	–	–
Billerica,	793 81	–	–	–	–	–	–	–	–	–
Boxborough,	1,218 81	–	–	–	–	–	–	–	–	–
Burlington,	1,258 41	–	–	–	–	–	–	–	–	–
Cambridge,	–	–	–	–	15	4,171	–	$47,850 00	–	–
Carlisle,	1,075 05	200 00	–	–	–	–	–	–	–	–
Chelmsford,	–	–	–	–	–	–	–	–	–	–
Concord,	–	–	2	143	2	80	94,550 00	27,500 00	$8,160 00	$460 00
Dracut,	1,033 41	28 00	–	–	–	–	–	–	–	–
Dunstable,	1,218 81	–	–	–	–	–	–	–	–	–
Everett,	–	–	–	–	–	–	–	–	–	–
Framingham,	–	483 00	–	–	1	7	–	875 00	–	–
Groton,	–	–	1	158	1	40	132,300 00	1,800 00	7,500 00	1,700 00
Holliston,	868 81	–	–	–	–	–	–	–	–	–

Hopkinton,	868 81	25 00	–	–	–	–	–	–	–	–
Hudson,	–	–	–	–	–	–	–	–	–	–
Lexington,	–	–	–	–	3	32	–	3,684 89	–	–
Lincoln,	–	200 00	–	–	–	–	–	–	–	–
Littleton,	1,108 41	–	–	–	–	–	–	–	–	–
Lowell,	–	–	2	189	11	5,397	27,000 00	416 00	140,000 00	5,000 00
Malden,	–	1,034 21	–	–	1	1,401	–	–	–	–
Marlborough,	–	–	1	202	1	240	7,000 00	–	75,000 00	–
Maynard,	–	–	–	–	–	–	–	–	–	–
Medford,	–	–	–	–	3	44	–	–	–	–
Melrose,	–	–	–	–	1	20	–	–	–	–
Natick,	–	–	–	–	1	69	–	10,000 00	60,000 00	–
Newton,	–	–	3	292	7	245	30,000 00	30,000 00	–	–
North Reading,	1,258 41	–	–	–	–	–	–	–	–	–
Pepperell,	1,033 41	–	–	–	–	–	–	–	–	–
Reading,	–	–	–	–	–	–	–	–	–	–
Sherborn,	868 80	–	1	32	–	–	–	–	16,234 12	1,252 12
Shirley,	868 80	–	–	–	–	–	–	–	–	–
Somerville,	–	–	–	–	2	1,904	–	–	–	–
Stoneham,	–	–	–	–	–	–	–	–	–	–
Stow,	1,018 80	–	–	–	–	–	–	–	–	–
Sudbury,	868 80	–	–	–	–	–	–	–	–	–
Tewksbury,	868 80	55 00	–	–	–	–	–	–	–	–
Townsend,	1,108 40	–	–	–	–	–	–	–	–	–
Tyngsborough,	1,258 40	7 00	–	–	–	–	–	–	–	–
Wakefield,	–	–	–	–	–	–	–	–	–	–
Waltham,	–	–	1	55	3	1,185	3,100 00	–	83,250 00	162 00
Watertown,	–	–	–	–	–	–	–	–	–	–
Wayland,	1,108 40	–	–	–	–	–	–	–	–	–
Westford,	1,108 40	–	–	–	–	–	–	–	–	–
Weston,	–	–	–	–	–	–	–	–	–	–
Wilmington,	1,108 40	–	–	–	–	–	–	–	–	–
Winchester,	–	100 00	–	–	1	7	–	1,100 00	–	–
Woburn,	–	–	–	–	1	426	–	–	–	–
Totals,	$26,676 64	$2,484 45	12	1,101	56	15,306	$294,450 00	$123,225 89	$390,144 12	$8,574 12

NANTUCKET COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1908.	No. of public schools.	School Census Data Sept. 1, 1908.		School Membership, Attendance and Graduation Data for the School Year.							
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.	No. graduated from grammar schools.
Nantucket, . .	2,930	$3,337,130	11	413	304	504	–	47	322	443	390	.88	29

NORFOLK COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1908.	No. of public schools.	School Census Data Sept. 1, 1908.		School Membership, Attendance and Graduation Data for the School Year.							
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.	No. graduated from grammar schools.
Avon, . .	1,901	$943,202	10	414	289	433	–	23	290	405	381	.94	25
Bellingham, . .	1,686	813,647	10	308	188	291	–	8	223	264	247	.93	12
Braintree, . .	6,879	5,799,321	32	1,414	1,025	1,536	79	113	943	1,410	1,243	.88	114
Brookline, . .	23,436	100.766,800	98	3,619	2,574	4,274	361	584	2,502	3,749	3,459	.92	248
Canton, . .	4,702	3,990,140	17	873	699	643	2	54	451	583	539	.92	26
Cohasset, . .	2,727	7,043,823	11	457	338	460	–	59	335	421	385	.91	24
Dedham, . .	7,774	12,613,550	41	1,457	1,060	1,754	166	191	1,044	1,633	1,507	.92	71
Dover, . .	636	1,402,132	6	138	104	124	–	8	90	106	100	.94	10
Foxborough, . .	3,364	2,209,320	16	538	367	660	3	76	411	564	526	.93	40
Franklin, . .	5,244	3,692,425	24	979	719	1,138	9	122	718	975	893	.91	24
Holbrook, . .	2,509	1,419,573	13	503	359	551	2	36	367	504	469	.93	28
Hyde Park, . .	14,510	14,019,675	43	2,774	2,321	1,966	–	306	1,118	1,809	1,712	.95	129

Medfield, . .	3,314	1,542,939	7	240	177	305	–	50	179	262	246	.94	10
Medway, . .	2,650	1,345,985	12	439	318	518	5	43	374	438	401	.91	28
Millis, . . .	1,252	800,810	7	258	186	294	–	27	174	245	224	.91	12
Milton, . .	7,054	23,864,970	44	1,327	1,074	1,580	140	225	813	1,397	1,290	.92	83
Needham, . .	4,284	5,655,547	25	820	577	914	3	126	600	884	832	.93	54
Norfolk, . .	1,089	806,831	6	176	117	147	–	9	96	144	137	.95	7
Norwood, . .	6,731	6,100,660	35	1,454	1,378	1,572	8	170	1,020	1,523	1,443	.95	93
Plainville, . .	1,300	749,947	6	211	145	221	1	29	141	191	177	.93	10
Quincy, . .	28,076	28,610,390	116	7,362	5,897	6,290	5	309	4,452	5,769	5,364	.93	396
Randolph, . .	4,034	2,006,300	16	721	549	716	11	44	474	674	640	.95	55
Sharon, . .	2,085	2,576,970	11	413	297	386	5	47	239	338	298	.88	18
Stoughton, . .	5,959	3,507,085	23	932	760	938	3	90	620	861	792	.92	40
Walpole, . .	4,003	4,179,651	21	835	588	913	1	77	578	821	763	.93	50
Wellesley, . .	6,189	13,673,875	22	821	562	962	28	132	727	897	836	.93	44
Westwood, . .	1,136	2,316,676	6	230	167	217	2	6	158	188	175	.93	8
Weymouth, . .	11,585	7,733,640	57	2,031	1,521	2,295	38	250	1,424	2,155	2,013.	.93	108
Wrentham, . .	1,428	1,190,364	8	209	156	264	1	26	174	228	208	.91	16
Totals, . .	167,537	$261,376,248	743	31,953	24,512	32,362	873	3,240	20,735	29,438	27,300	.93	1,783

NANTUCKET COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.						
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.													
	Men.	Women.	In high schools.	In elementary schools.	No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.
Nantucket, .	1	17	1	–	4	$100 00	$33 50	101–10	9–5	1	4	58	28	12	9–9	$2,825 59

NORFOLK COUNTY — CONTINUED.

TOWNS AND CITIES.	Men.	Women.	In high schools.	In elementary schools.	No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.
Avon, . .	1	10	2	–	6	$105 25	$46 06	92	9–4	1	2	56	22	2	9–7	$2,065 00
Bellingham, .	–	10	–	–	7	–	43 20	87–11	8–15	–	–	–	–	–	–	–
Braintree, . .	3	43	7	3	22	110 00	50 68	286–7	8–19	1	8	170	96	18	9–7	7,744 23
Brookline, . .	17	140	17	3	75	202 35	78 43	945–14	9–13	1	23	531	196	54	9–13	46,913 32
Canton, . .	1	18	3	–	7	150 00	53 68	170	10	1	3	65	31	13	10	3,228 50
Cohasset, . .	1	14	4	1	8	180 00	67 37	110	10	1	5	69	25	9	10	5,370 00
Dedham, . .	5	52	6	2	36	150 00	67 25	370	9–5	1	9	238	99	36	9–5	11,928 61
Dover, . .	1	5	1	–	5	74 13	48 90	55–18	9–6	1	1	19	8	–	9–10	1,486 02
Foxborough, .	1	17	3	1	6	138 95	46 49	140–14	8–15	1	3	75	30	6	9–7	3,231 63
Franklin, . .	2	27	3	1	11	66 50	49 58	209–12	8–14	1	4	116	37	13	9–15	4,500 00
Holbrook, . .	1	13	2	–	7	120 00	45 60	117–9	9–13	1	2	68	27	8	9–7	2,385 00
Hyde Park, .	8	50	13	13	11	131 25	55 69	357–13	8–18	1	15	393	138	60	9–3	16,802 78

Medfield, . .	1	8	2	–	2	98 00	48 59	66–16	9–10	1	3	43	15	8	9–15	2,171 13
Medway, . .	1	13	3	–	8	95 00	39 08	105–10	8–15	1	3	43	21	8	9–15	2,290 00
Millis, . .	1	7	2	1	3	80 00	43 50	61–15	8–16	1	2	42	15	4	9–12	1,672 85
Milton, . .	5	56	7	–	39	183 33	78 34	399–11	9–1	1	9	185	75	25	9	16,000 00
Needham, . .	2	28	6	2	11	112 50	51 00	235–8	9–8	1	6	140	58	22	9–14	7,254 92
Norfolk, . .	1	5	1	–	3	73 60	43 20	53–2	8–17	1	1	26	4	–	9–11	1,877 43
Norwood, . .	3	44	7	3	25	133 33	60 40	316–16	9–1	1	8	169	79	28	9–7	7,907 00
Plainville, . .	1	7	3	–	3	110 00	45 71	55–10	9–5	1	3	36	11	8	9–13	2,825 00
Quincy, . .	18	139	18	3	70	126 00	65 98	1,047	9–3	1	25	799	339	102	9–7	28,595 70
Randolph, . .	3	15	3	–	6	119 29	46 99	145–7	9–1	1	3	103	50	13	8–18	3,436 46
Sharon, . .	1	10	4	–	7	120 00	51 50	102–7	9–7	1	3	64	19	9	9–7	2,700 00
Stoughton, .	1	26	3	1	9	150 00	47 85	200–11	8–14	1	4	70	26	11	9–11	3,964 00
Walpole, . .	4	22	5	–	13	90 00	53 63	199–7	9–10	1	5	123	46	16	9–15	7,008 80
Wellesley, . .	3	40	8	1	20	164 33	59 30	196–11	8–19	1	8	150	49	23	8–11	10,503 51
Westwood, .	1	5	–	–	6	86 00	54 50	56–14	9–9	–	–	–	–	–	–	–
Weymouth, .	7	59	9	1	34	99 28	49 41	545–4	9–8	1	9	289	120	37	9–10	10,759 65
Wrentham, .	1	9	3	–	5	110 00	44 28	74–2	9–5	1	3	36	11	5	9–14	2,623 05
Totals, .	95	892	145	36	465	$137 99	$60 75	6,804–9	9–3	27	170	4,118	1,647	538	9–9	$217,244 59

NANTUCKET COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Nantucket, .	$7,070 75	–	$824 55	$125 00	$400 00	$797 27	$527 03	$9,744 60	$22 25	$9,722 35

NORFOLK COUNTY — CONTINUED.

Avon, . .	$5,582 05	–	$1,496 65	$100 00	$399 96	$700 00	$530 68	$8,809 34	$2,099 26	$6,710 08
Bellingham, .	4,851 00	$1,141 00	1,365 03	41 50	662 47	414 64	162 31	8,637 95	2,552 16	6,085 79
Braintree, . .	23,421 43	1,862 50	5,259 95	125 00	1,800 00	2,746 92	1,243 67	36,459 47	576 50	35,882 97
Brookline, . .	150,842 11	2,452 00	25,261 35	2,683 33	4,000 00	11,432 56	12,788 47	209,459 82	–	209,459 82
Canton, . .	12,136 25	115 00	3,612 03	25 00	1,800 00	1,758 71	43 00	19,489 99	247 50	19,242 49
Cohasset, . .	10,991 00	3,291 00	2,731 45	115 00	750 00	856 06	400 19	19,134 70	40 40	19,094 30
Dedham, . .	41,679 90	670 75	7,895 72	100 00	2,200 00	3,257 86	1,194 71	56,998 94	2,460 12	54,538 82
Dover, . .	2,735 53	1,262 03	715 27	185 00	300 00	307 92	101 01	5,606 76	1,689 63	3,917 13
Foxborough, .	8,998 87	1,140 10	2,543 38	187 00	900 00	699 10	739 12	15,207 57	1,847 99	13,359 58
Franklin, . .	14,056 19	2,785 54	4,383 26	–	1,000 00	2,094 53	711 42	25,030 94	786 81	24,244 13
Holbrook, . .	7,181 50	–	807 00	155 00	500 00	929 88	993 06	10,566 44	1,483 16	9,083 28
Hyde Park, .	41,248 75	–	8,326 48	250 00	2,350 00	5,649 15	125 00	57,949 38	–	57,949 38

Medfield, . .	5,418 85	225 00	1,043 43	105 00	449 00	883 70	145 24	8,270 22	1,982 89	6,287 33
Medway, . .	6,416 47	1,437 50	1,127 75	–	565 00	1,069 47	929 80	11,545 99	1,655 41	9,890 58
Millis, . .	3,757 00	1,000 00	968 13	73 00	450 00	518 40	102 71	6,869 24	2,031 54	4,837 70
Milton, . .	49,681 72	1,800 00	10,707 49	606 03	2,499 99	5,069 42	1,141 31	71,505 96	–	71,505 96
Needham, . .	18,392 61	344 50	4,548 53	30 00	1,200 00	2,307 83	4,533 16	31,356 63	813 50	30,543 13
Norfolk, . .	2,986 50	1,292 43	575 34	118 00	450 00	279 83	27 75	5,729 85	1,768 82	3,961 03
Norwood, . .	29,747 32	847 75	6,591 37	50 00	2,000 00	4,011 89	2,420 74	45,669 07	153 50	45,515 57
Plainville, . .	4,751 00	1,215 00	1,337 58	120 00	502 50	650 25	319 63	8,895 96	2,596 90	6,299 06
Quincy, . .	104,738 10	1,250 00	15,513 49	900 00	2,700 00	8,736 38	1,797 68	135,635 65	32 14	135,603 51
Randolph, . .	10,692 62	340 00	1,625 92	340 00	600 00	1,132 42	1,057 23	15,788 19	1,607 80	14,180 39
Sharon, . .	7,719 25	469 50	1,488 59	45 00	360 00	1,301 59	90 00	11,473 93	2,143 19	9,330 74
Stoughton, . .	13,736 75	308 50	3,082 02	257 14	720 00	1,643 57	1,057 84	20,805 82	674 00	20,131 82
Walpole, . .	16,404 76	1,875 00	4,398 41	12 00	1,422 91	2,406 49	1,075 65	27,595 22	154 69	27,440 53
Wellesley, . .	29,565 25	1,130 00	8,483 77	223 67	1,380 00	3,878 02	837 72	45,498 43	–	45,498 43
Westwood, . .	5,775 00	1,264 25	948 79	138 50	450 00	355 84	161 54	9,093 92	1,457 99	7,635 93
Weymouth, .	37,535 08	1,897 00	9,234 06	347 25	2,000 00	3,093 72	446 61	54,553 72	104 00	54,449 72
Wrentham, .	5,260 78	1,117 00	1,272 71	106 00	502 50	475 10	145 18	8,879 27	1,758 49	7,120 78
Totals, .	$676,303 64	$32,533 35	$137,344 95	$7,438 42	$34,914 33	$68,661 25	$35,322 43	$992,518 37	$32,718 39	$959,799 98

NANTUCKET COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Nantucket, . . .	–	–	$541 64	$541 64	–	$541 64	$10,263 99	–	–	$286 25

NORFOLK COUNTY — CONTINUED.

TOWNS AND CITIES.	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.	Total expenditure for school buildings.	Amount from other sources than local taxation.	Amount raised by local taxation for school buildings.	Amount raised by local taxation for all school purposes.	Principal.	Income.	Dog tax and other income.
Avon, . . .	–	$239 57	$27 00	$266 57	–	$266 57	$6,976 65	–	–	–
Bellingham, . . .	–	–	17 17	17 17	–	17 17	6,102 96	–	–	$245 84
Braintree, . . .	–	835 61	2,102 99	2,938 60	–	2,938 60	38,821 57	$6,700 00	$350 00	850 88
Brookline, . . .	–	3,000 00	9,245 24	12,245 24	–	12,245 24	221,705 06	–	–	–
Canton, . . .	–	–	848 63	848 63	–	848 63	20,091 12	–	–	590 37
Cohasset, . . .	–	–	719 63	719 63	–	719 63	19,813 93	1,000 00	40 40	433 22
Dedham, . . .	$2,741 25	3,166 79	2,274 57	8,182 61	–	8,182 61	62,721 43	–	–	–
Dover, . . .	–	238 45	118 80	357 25	–	357 25	4,274 38	–	–	–
Foxborough, . . .	–	98 36	555 03	653 39	–	653 39	14,012 97	–	–	713 29
Franklin, . . .	–	433 83	790 43	1,224 26	–	1,224 26	25,468 39	–	–	708 57
Holbrook, . . .	–	500 00	94 85	594 85	–	594 85	9,678 13	–	–	–
Hyde Park, . . .	–	–	4,446 79	4,446 79	–	4,446 79	62,396 17	–	–	–

Medfield, . . .	–	661 15	212 86	874 01	–	874 01	7,161 34	3,540 00	141 60	–
Medway, . . .	–	248 13	126 95	375 08	–	375 08	10,265 66	–	–	–
Millis, . . .	–	396 29	125 76	522 05	–	522 05	5,359 75	–	–	–
Milton, . . .	–	–	5,996 96	5,996 96	–	5,996 96	77,502 92	–	–	–
Needham, . . .	–	8,105 00	2,074 73	10,179 73	–	10,179 73	40,722 86	6,000 00	420 00	–
Norfolk, . . .	–	12 50	202 35	214 85	–	214 85	4,175 88	–	–	187 39
Norwood, . . .	–	2,337 93	2,078 93	4,416 86	–	4,416 86	49,932 43	–	–	–
Plainville, . . .	–	–	–	–	–	–	6,299 06	727 30	29 09	307 57
Quincy, . . .	64,431 02	2,997 99	1,446 59	68,875 60	–	68,875 60	204,479 11	1,000 00	32 14	–
Randolph, . . .	17,840 95	199 28	224 11	18,264 34	–	18,264 34	32,444 73	21,112 66	901 00	492 23
Sharon, . . .	–	129 33	613 55	742 88	–	742 88	10,073 62	12,671 78	682 69	–
Stoughton, . . .	–	294 95	868 93	1,163 88	–	1,163 88	21,295 70	1,000 00	40 40	–
Walpole, . . .	18,296 07	796 63	1,332 91	20,425 61	–	20,425 61	47,866 14	–	–	589 47
Wellesley, . . .	–	2,712 98	597 33	3,310 31	–	3,310 31	48,808 74	–	–	–
Westwood, . . .	1,000 00	852 10	136 00	1,988 10	–	1,988 10	9,624 03	1,000 00	40 00	–
Weymouth, . . .	–	–	3,627 04	3,627 04	–	3,627 04	58,076 76	–	–	722 32
Wrentham, . . .	–	293 49	54 00	347 49	–	347 49	7,468 27	1,090 96	61 96	302 66
Totals, . .	$104,309 29	$28,550 36	$40,960 13	$173,819 78	–	$173,819 78	$1,133,619 76	$55,842 70	$2,739 28	$6,143 81

NANTUCKET COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1909.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	Academies and Private Schools.				Estimated Amount of Tuition paid in —		Funds whose Income must be appropriated to Academies or Private Schools.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Nantucket,	–	–	–	–	–	–	–	–	–	–

NORFOLK COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1909.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	Academies and Private Schools.				Estimated Amount of Tuition paid in —		Funds whose Income must be appropriated to Academies or Private Schools.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Avon,	$1,018 81	–	–	–	–	–	–	–	–	–
Bellingham,	1,258 41	–	–	–	–	–	–	–	–	–
Braintree,	–	–	–	–	–	–	–	–	–	–
Brookline,	–	–	–	–	2	454	–	$7,417 00	–	–
Canton,	–	–	–	–	1	270	–	–	–	–
Cohasset,	–	$50 00	–	–	–	–	–	–	–	–
Dedham,	–	–	–	–	1	25	–	2,000 00	–	–
Dover,	1,108 41	–	–	–	–	–	–	–	–	–
Foxborough,	793 81	–	–	–	–	–	–	–	–	–
Franklin,	–	250 00	1	217	–	–	$10,803 00	–	$106,000 00	$6,000 00
Holbrook,	868 81	–	–	–	–	–	–	–	–	–
Hyde Park,	–	–	–	–	–	–	–	–	–	–

Medfield, ...	868 81	75 00	–	–	–	–	–	–	–	–
Medway, ...	1,108 41	–	–	–	–	–	–	–	–	–
Millis, ...	1,018 81	24 61	–	–	–	–	–	–	–	–
Milton, ...	–	–	–	–	–	–	–	–	–	–
Needham.	–	–	–	–	–	–	–	–	–	–
Norfolk, ...	1,258 41	–	–	–	–	–	–	–	–	–
Norwood, ...	–	400 00	–	–	–	–	–	–	–	–
Plainville, ...	1,258 41	–	–	–	–	–	–	–	–	–
Quincy, ...	–	–	–	–	4	255	–	10,000 00	400,000 00	20,000 00
Randolph, ...	868 80	–	–	–	–	–	–	–	–	–
Sharon, ...	–	–	–	–	–	–	–	–	–	–
Stoughton, ...	–	–	–	–	1	271	–	–	–	–
Walpole, ...	–	300 00	–	–	–	–	–	–	–	–
Wellesley, ...	–	–	1	156	3	320	28,600 00	–	98,000 00	6,240 00
Westwood, ...	793 80	20 53	–	–	1	47	–	–	–	–
Weymouth, ...	–	–	–	–	–	–	–	–	–	–
Wrentham, ...	1,108 40	–	–	–	–	–	–	–	–	–
Totals, ...	$13,332 10	$1,120 14	2	373	13	1,642	$39,403 00	$19,417 00	$604,000 00	$32,240 00

PLYMOUTH COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1908.	No. of public schools.	School Census Data Sept. 1, 1908.		School Membership, Attendance and Graduation Data for the School Year.							
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.	No. graduated from grammar schools.
Abington, . .	5,081	$2,797,393	19	730	589	1,013	2	132	624	927	863	.93	64
Bridgewater, .	6,754	3,254,972	25	743	589	947	41	100	588	805	737	.92	66
Brockton, . .	47,794	38,609,314	195	8,479	6,179	9,141	13	978	6,116	8,460	8,012	.94	520
Carver, . .	1,410	1,395,855	10	252	209	235	3	9	191	186	162	.87	7
Duxbury, . .	2,028	2,298,460	10	267	195	279	8	20	168	252	229	.91	11
East Bridgewater, .	3,169	1,965,410	16	551	397	591	–	54	391	558	524	.94	37
Halifax, . .	494	513,481	3	86	65	84	–	1	67	70	63	.90	3
Hanover, . .	2,176	1,444,355	11	378	286	394	1	35	290	369	333	.90	17
Hanson, . .	1,490	1,279,150	9	299	201	290	5	1	213	273	240	.87	6
Hingham, . .	4,819	5,769,551	20	738	530	903	–	146	523	837	787	.94	49
Hull, . . .	2,060	5,177,250	8	185	155	232	–	28	171	210	199	.95	11
Kingston, . .	2,205	1,557,900	11	397	295	382	2	39	287	387	358	.93	20
Lakeville, . .	912	675,405	6	159	112	142	1	–	118	135	117	.87	–
Marion, . .	1,029	2,870,690	6	151	102	157	–	6	102	143	134	.94	10
Marshfield, . .	1,763	1,864,655	10	232	170	281	1	40	194	255	228	.90	19
Mattapoisett, .	1,180	1,592,085	7	214	175	206	2	6	152	187	170	.92	12
Middleborough, .	6,888	4,527,596	35	1,280	930	1,492	–	150	995	1,275	1,178	.93	62
Norwell, . .	1,534	866,993	7	219	187	249	–	28	168	239	222	.92	17
Pembroke, . .	1,261	971,185	7	194	139	199	1	10	146	185	168	.91	14
Plymouth, . .	11,119	10,448,592	52	2,024	1,466	2,095	–	155	1,455	1,970	1,857	.94	96

Plympton, . .	514	335,151	3	90	71	68	1	4	55	63	55	.87	1
Rochester, . .	1,181	626,857	7	161	119	168	1	2	131	154	137	.88	8
Rockland, . .	6,287	3,779,971	25	1,019	724	1,204	13	147	770	1,135	1,070	.94	72
Scituate, . .	2,597	4,154,615	12	433	355	497	2	76	337	453	419	.90	35
Wareham, . .	3,660	3,770,791	21	619	548	671	–	86	454	603	551	.91	37
West Bridgewater, .	2,006	1,221,718	12	405	285	383	2	2	272	365	339	.93	20
Whitman, . .	6,521	4,741,528	28	1,198	840	1,339	–	132	751	1,272	1,211	.95	69
Totals, . .	127,932	$108,510,923	575	21,503	15,913	23,642	99	2,387	15,729	21,768	20,363	.94	1,283

SUFFOLK COUNTY.

Boston, . .	595,380	$1,327,662,338	1,904	111,450	74,869	108,531	3,283	10,039	61,732	95,926	86,792	.90	6,320
Chelsea, . .	37,289	20,872,400	113	4,597	3,177	7,443	–	781	4,771	6,318	5,815	.92	332
Revere, . .	12,659	15,055,550	73	3,149	2,154	3,395	3	318	2,282	3,120	2,898	.92	201
Winthrop, . .	7,034	10,757,665	32	1,474	1,062	1,665	–	231	1,054	1,532	1,366	.90	107
Totals, . .	652,362	$1,374,347,953	2,122	120,670	81,262	121,034	3,286	11,369	69,839	106,896	96,871	.91	6,960

PLYMOUTH COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.						
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.												
Abington,	4	22	7	–	18	$112 50	$51 25	178–8	9–7	1	8	223	55	30	9–9	$8,573 82
Bridgewater,	2	29	5	1	24	190 00	67 58	209–1	8–7	1	6	106	28	19	9–11	7,628 83
Brockton,	18	210	27	–	138	158 76	59 89	1,774–10	9–2	1	36	961	374	105	9–6	55,374 62
Carver,	2	9	–	–	9	59 00	40 00	86–15	8–13	1	2	13	5	–	9–14	1,460 00
Duxbury,	1	11	1	–	4	100 00	42 88	90–9	9–9	1[1]	3	64	11	2	9–15	2,590 00
E. Bridgewater,	1	18	3	–	10	110 00	44 69	138–8	8–13	1	3	70	28	4	9–13	2,771 50
Halifax,	–	3	–	1	1	–	48 00	24	8	–	–	–	–	–	–	–
Hanover,	2	11	3	1	2	85 51	44 12	101–14	9–5	1	3	68	16	9	9–11	2,619 67
Hanson,	1	8	–	–	6	60 00	42 48	77–12	8–12	–	–	–	–	–	–	–
Hingham,	5	22	7	2	13	124 00	52 98	200	10	1	7	198	60	25	10	8,930 00
Hull,	2	6	–	2	8	90 00	52 50	76–4	9–10	–	–	–	–	–	–	–
Kingston,	1	13	2	–	7	110 00	46 15	100–19	9–4	1	4	70	17	10	9–17	3,442 92
Lakeville.	–	6	–	1	5	–	41 80	52–10	8–15	–	–	–	–	–	–	–
Marion,	1	5	1	–	3	60 00	44 80	54	9	1[2]	6	57	17	10	9–8	11,000 00
Marshfield,	1	10	2	–	6	100 00	44 00	87–13	8–15	1	2	54	19	6	9–13	3,171 83
Mattapoisett,	–	7	–	–	4	–	46 14	65	9–6	–	–	–	–	–	–	–
Middleborough,	6	36	5	–	9	113 33	46 27	318	9	1	8	171	56	38	9–15	8,050 00
Norwell,	1	8	3	–	4	90 00	43 88	67	9–11	1	3	61	16	5	10	3,237 39
Pembroke,	1	7	1	–	3	64 86	38 86	62–15	8–19	1	2	32	6	–	9–2	1,529 47
Plymouth,	4	55	7	1	25	102 50	51 12	484–1	9–13	1	7	151	91	21	9–16	7,195 00

Plympton, .	–	3	–	–	3	–	42 68	25–16	8–12	–	–	–	–	–	–	–
Rochester, .	–	7	–	1	5	–	44 50	61–13	8–16	–	–	–	–	–	–	–
Rockland, .	4	27	5	–	12	91 60	56 89	235–5	9–8	1	7	191	70	35	9–7	7,188 71
Scituate, .	1	13	3	–	2	123 30	56 60	114	9–10	1	3	77	36	13	10	3,437 50
Wareham, .	1	23	3	1	7	130 00	46 13	190	9–1	1	4	80	36	12	10	5,071 27
W. Bridgewater, .	–	12	–	–	9	–	47 54	104	8–13	1[3]	7	27	6	2	8–10	–
Whitman, .	2	33	7	–	16	115 00	54 93	256	9–5	1	7	178	84	19	9–5	7,108 92
Totals, .	61	614	92	11	353	$121 49	$53 47	5,236–13	9–2	20	128	2,852	1,031	365	9–12	$150,381 66

SUFFOLK COUNTY — CONTINUED.

Boston, .	338	2,254	213	109	1,897	$193 20	$73 78	17,897	9–8	15	324	9,168	3,912	1,840	141	$751,524 33
Chelsea, .	16	192	11	2	98	170 71	72 25	1,045–5	9–5	1	21	557	242	59	8–9	23,855 00
Revere, .	3	85	6	5	39	155 00	59 07	674–10	9–5	1	9	296	154	22	9–10	12,882 86
Winthrop, .	4	39	8	2	26	162 50	65 50	289–12	9–1	1	10	220	112	24	9–1	12,800 00
Totals, .	361	2,570	238	118	2,060	$191 54	$73 05	19,907–7	9–7	18	364	10,241	4,420	1,945	9–6	$801,062 19

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[1] Partridge Academy.

[2] Tabor Academy.

[3] Howard Seminary.

PLYMOUTH COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Abington,	$17,603 23	$920 00	$3,304 61	$350 00	$1,100 00	$2,258 17	$1,278 57	$26,814 58	$875 67	$25,938 91
Bridgewater,	24,309 00	1,326 08	2,074 22	–	1,100 00	1,427 27	705 27	30,941 84	8,095 13	22,846 71
Brockton,	173,690 58	100 00	44,826 51	2,445 00	4,350 00	20,196 48	9,401 44	255,010 01	246 44	254,763 57
Carver,	4,190 45	519 00	661 95	245 04	600 00	393 86	40 66	6,650 96	2,198 50	4,452 46
Duxbury,	6,303 59	217 85	1,084 63	104 95	519 98	547 05	51 15	8,829 20	1,292 29	7,536 91
East Bridgewater,	8,745 58	715 00	1,723 47	–	700 00	695 77	479 25	13,059 07	1,760 08	11,298 99
Halifax,	1,357 60	1,147 30	181 23	12 00	220 00	163 36	65 19	3,146 68	1,324 66	1,822 02
Hanover,	6,870 62	801 60	852 60	133 25	448 13	726 79	17 00	9,849 99	1,453 63	8,396 36
Hanson,	4,529 58	540 25	665 08	110 28	435 00	361 85	443 40	7,085 44	1,743 61	5,341 83
Hingham,	17,800 00	800 00	4,917 47	115 00	1,300 00	1,846 70	1,465 41	28,244 58	2,240 80	26,003 78
Hull,	5,565 00	1,871 60	1,963 25	235 00	330 00	480 87	886 16	11,331 88	–	11,331 88
Kingston,	7,656 50	539 50	1,536 68	127 96	660 00	740 21	560 42	11,821 27	1,947 69	9,873 58
Lakeville,	2,946 25	847 87	155 48	54 00	450 00	210 42	34 50	4,698 52	2,027 81	2,670 71
Marion,	3,062 50	746 00	643 99	197 00	699 96	250 60	89 83	5,689 88	1,167 86	4,522 02
Marshfield,	5,417 00	2,120 35	762 66	156 50	519 98	568 83	356 97	9,902 29	1,585 66	8,316 63
Mattapoisett,	3,434 15	1,053 43	969 14	92 55	387 50	227 44	114 97	6,279 18	1,288 32	4,990 86
Middleborough,	21,143 60	1,912 00	4,502 47	150 00	2,000 00	1,506 53	844 03	32,058 63	–	32,058 63
Norwell,	4,563 00	3,005 75	641 89	100 00	500 00	512 04	75 31	9,397 99	2,373 16	7,024 83
Pembroke,	3,448 20	656 00	688 42	105 00	550 00	355 97	164 72	5,968 31	957 67	5,010 64
Plymouth,	34,430 57	1,029 84	7,129 08	100 00	2,000 00	2,718 65	1,705 24	49,113 38	162 25	48,951 13

Plympton, . .	1,532 66	53 70	221 42	50 50	220 00	116 10	50 05	2,244 43	1,400 17	844 26
Rochester, . .	4,162 79	342 00	216 98	50 00	450 00	215 46	74 00	5,511 23	3,007 26	2,503 97
Rockland, . .	19,380 25	71 50	4,024 44	17 56	1,400 00	1,817 92	413 20	27,124 87	145 50	26,979 37
Scituate, . .	8,887 00	4,787 90	2,141 44	255 00	533 33	1,236 22	565 11	18,406 00	36 09	18,369 91
Wareham, . .	11,973 93	1,243 45	1,917 40	299 45	1,122 87	1,762 19	656 80	18,976 09	924 55	18,051 54
West Bridgewater,	5,224 25	718 63	1,125 88	90 00	539 33	420 35	420 96	8,539 40	1,646 97	6,892 43
Whitman, . .	20,746 18	–	5,334 11	130 00	1,100 00	2,171 69	980 79	30,462 77	761 01	29,701 76
Totals, .	$428,974 06	$28,086 60	$94,266 50	$5,726 04	$24,236 08	$43,928 79	$21,940 40	$647,158 47	$40,662 78	$606,495 69

SUFFOLK COUNTY — CONTINUED.

Boston, . .	$2,976,012 31	–	$382,470 48	$70,824 56	$33,000 00	$127,018 35	$37,272 16	$3,626,597 86	$60,264 59	$3,566,333 27
Chelsea, . .	118,784 74	–	17,837 36	2,625 00	2,800 00	13,503 68	–	155,550 78	1,225 11	154,325 67
Revere, . .	58,881 98	$35 00	13,709 41	1,083 32	2,208 38	7,644 93	3,295 13	86,858 15	130 38	86,727 77
Winthrop, . .	32,764 90	250 00	5,894 56	125 00	2,100 00	3,550 65	2,720 25	47,405 36	–	47,405 36
Totals, .	$3,186,443 93	$285 00	$419,911 81	$74,657 88	$40,108 38	$151,717 61	$43,287 54	$3,916,412 15	$61,620 08	$3,854,792 07

PLYMOUTH COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Abington,	–	$100 00	$1,040 57	$1,140 57	–	$1,140 57	$27,079 48	–	–	–
Bridgewater,	–	1,672 05	177 84	1,849 89	–	1,849 89	24,696 60	$6,300 00	$312 12	$798 92
Brockton,	$21,703 50	39,384 64	8,181 68	69,269 82	–	69,269 82	324,033 39	–	–	2,230 31
Carver,	–	–	147 64	147 64	–	147 64	4,600 10	8,500 00	450 00	–
Duxbury,	3,180 40	319 55	219 92	3,719 87	–	3,719 87	11,256 78	–	–	314 83
East Bridgewater,	–	8,659 13	298 90	8,958 03	–	8,958 03	20,257 02	–	–	548 97
Halifax,	–	–	80 40	80 40	–	80 40	1,902 42	–	–	141 97
Hanover,	–	480 72	392 03	872 75	–	872 75	9,269 11	–	–	290 29
Hanson,	5,532 71	90 00	371 24	5,993 95	–	5,993 95	11,335 78	–	–	–
Hingham,	–	200 00	947 38	1,147 38	–	1,147 38	27,151 16	1,000 00	40 40	670 88
Hull,	–	–	343 81	343 81	–	343 81	11,675 69	–	–	–
Kingston,	3,317 58	877 37	309 88	4,504 83	–	4,504 83	14,378 41	–	–	203 46
Lakeville,	–	–	114 86	114 86	–	114 86	2,785 57	–	–	–
Marion,	–	–	469 41	469 41	–	469 41	4,991 43	–	–	205 84
Marshfield,	–	–	179 14	179 14	–	179 14	8,495 77	–	–	410 98
Mattapoisett,	–	–	193 87	193 87	–	193 87	5,184 73	9,858 50	–	–
Middleborough,	–	364 00	1,007 82	1,371 82	–	1,371 82	33,430 45	–	–	–
Norwell,	–	182 10	182 45	364 55	–	364 55	7,389 38	–	–	365 11
Pembroke,	–	–	273 52	273 52	–	273 52	5,284 16	–	–	113 00
Plymouth,	–	–	2,683 05	2,683 05	–	2,683 05	51,634 18	365 00	18 25	–

Plympton, . . .	–	36 00	79 95	115 95	–	115 95	960 21	–	–	114 28
Rochester, . . .	–	–	172 13	172 13	–	172 13	2,676 10	7,000 00	385 84	248 20
Rockland, . . .	–	2,193 00	650 14	2,843 14	–	2,843 14	29,822 51	–	–	–
Scituate, . . .	–	894 50	492 43	1,386 93	–	1,386 93	19,756 84	–	–	365 43
Wareham, . . .	33,343 92	517 09	591 62	34,452 63	–	34,452 63	52,504 17	–	–	–
West Bridgewater, .	13,675 40	265 67	288 86	14,229 93	–	14,229 93	21,122 36	–	–	–
Whitman, . . .	14,494 01	1,161 45	997 96	16,653 42	–	16,653 42	46,355 18	–	–	867 72
Totals, . .	$95,247 52	$57,397 27	$20,888 50	$173,533 29	–	$173,533 29	$780,028 98	$33,023 50	$1,206 61	$7,890 19

SUFFOLK COUNTY — Continued.

Boston, . . .	$771,019 50	$337,400 00	–	$1,108,419 50	–	$1,108,419 50	$4,674,752 77	$128,157 00	$4,611 34	$66,746 83
Chelsea, . . .	–	10,827 93	–	10,827 93	–	10,827 93	165,153 60	–	–	–
Revere, . . .	63,177 45	22,356 40	$3,430 72	88,964 57	–	88,964 57	175,692 34	–	–	1,126 75
Winthrop, . . .	64,000 97	1,290 50	2,438 72	67,730 19	–	67,730 19	115,135 55	–	–	854 39
Totals, . .	$898,197 92	$371,874 83	$5,869 44	$1,275,942 19	–	$1,275,942 19	$5,130,734 26	$128,157 00	$4,611 34	$68,727 97

PLYMOUTH COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1909.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS. No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	ESTIMATED AMOUNT OF TUITION PAID IN — Academies.	Private schools.	FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS. Principal.	Income.
Abington, ...	-	-	-	-	-	-	-	-	-	-
Bridgewater, . . .	-	-	-	-	-	-	-	-	-	-
Brockton, ...	-	$550 00	-	-	2	989	-	$5,100 00	$5,000 00	-
Carver, ...	$868 81	-	-	-	-	-	-	-	-	-
Duxbury, ...	75 00	-	-	-	1	40	-	500 00	30,000 00	$750 00
East Bridgewater, . . .	868 81	20 00	-	-	-	-	-	-	-	-
Halifax, ...	1,218 81	33 37	-	-	-	-	-	-	-	-
Hanover, ...	868 81	-	-	-	-	-	-	-	-	-
Hanson, ...	868 81	-	-	-	-	-	-	-	-	-
Hingham, ...	-	-	-	-	-	-	-	-	-	-
Hull, ...	-	-	-	-	-	-	-	-	-	-
Kingston, ...	1,108 41	-	-	-	-	-	-	-	-	-
Lakeville, ...	1,018 81	-	-	-	-	-	-	-	-	-
Marion, ...	-	-	-	-	-	-	-	-	225,000 00	10,000 00
Marshfield, ...	725 05	-	-	-	-	-	-	-	-	-
Mattapoisett, . . .	868 81	-	-	-	-	-	-	-	-	-
Middleborough, . . .	-	-	-	-	1	25	-	-	-	-
Norwell, ...	1,258 41	-	-	-	-	-	-	-	-	-
Pembroke, ...	779 20	25 00	-	-	-	-	-	-	-	-
Plymouth, ...	-	-	-	-	-	-	-	-	-	-

Plympton,	979 20	–	–	–	–	–	–	–	–	–
Rochester,	1,258 41	–	–	–	–	–	–	–	–	–
Rockland,	–	–	–	–	–	–	–	–	–	–
Scituate,	–	–	–	–	–	–	–	–	–	–
Wareham,	–	–	–	–	–	–	–	–	–	–
West Bridgewater,	1,108 40	–	–	–	1	56	–	6,600 00	147,351 35	5,642 71
Whitman,	–	–	–	–	1	15	–	600 00	–	–
Totals,	$13,873 75	$628 37	–	–	6	1,125	–	$12,800 00	$407,351 35	$16,392 71

SUFFOLK COUNTY — CONCLUDED.

Boston,	–	–	4	541	82	23,174	$35,609 81	$429,162 33	$4,248,218 08	$133,860 06
Chelsea,	–	$408 05	–	–	2	878	–	–	–	–
Revere,	–	251 65	–	–	–	–	–	–	–	–
Winthrop,	–	–	–	–	–	–	–	–	–	–
Totals,	–	$659 70	4	541	84	24,052	$35,609 81	$429,162 33	$4,248,218 08	$133,860 06

WORCESTER COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1908.	No. of public schools.	School Census Data Sept. 1, 1908.		School Membership, Attendance and Graduation Data for the School Year.							
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.	No. graduated from grammar schools.
Ashburnham, . .	1,851	$969,387	11	369	263	384	–	57	251	347	317	.91	23
Athol, . .	7,197	4,394,480	28	1,233	907	1,265	–	150	852	1,164	1,081	.92	62
Auburn, . .	2,006	1,140,435	12	499	399	392	1	7	308	353	309	.88	12
Barre, . .	2,558	1,738,200	13	437	305	418	–	54	281	387	351	.91	16
Berlin, . .	906	559,054	5	184	161	166	2	4	127	148	134	.91	10
Blackstone, . .	5,786	2,243,630	26	1,138	923	1,319	20	48	941	1,126	1,053	.92	52
Bolton, . .	762	495,041	4	122	100	119	–	14	79	107	98	.92	5
Boylston, . .	649	481,060	4	142	92	126	–	4	86	111	102	.92	13
Brookfield, . .	2,388	1,272,580	16	354	258	426	6	44	273	354	326	.92	8
Charlton, . .	2,089	1,306,860	15	370	287	428	7	21	293	343	319	.90	18
Clinton, . .	13,105	8,047,207	47	2,418	2,136	1,981	–	165	1,441	1,941	1,777	.94	86
Dana, . .	763	383,595	5	110	91	120	–	2	118	105	97	.92	3
Douglas, . .	2,120	1,227,431	10	285	239	385	–	18	254	302	279	.92	12
Dudley, . .	3,818	1,577,554	15	831	592	387	8	6	263	353	325	.92	8
Fitchburg, . .	33,021	27,752,413	106	6,579	4,715	4,350	23	633	2,760	3,966	3,742	.94	202
Gardner, . .	12,012	7,356,955	39	2,270	1,574	1,809	2	232	1,166	1,667	1,554	.93	87
Grafton, . .	5,052	2,674,645	20	902	591	880	–	67	666	857	782	.91	48
Hardwick, . .	3,261	1,723,165	14	581	430	410	6	30	246	368	352	.95	–
Harvard, . .	1,077	1,204,177	4	163	126	154	–	3	120	138	128	.94	15
Holden, . .	2,640	1,501,940	16	422	325	501	3	64	319	430	394	.91	17
Hopedale, . .	2,048	5,193,882	12	355	279	421	22	49	267	398	372	.94	24
Hubbardston, . .	1,205	690,300	8	209	142	205	1	14	167	185	170	.91	16
Lancaster, . .	2,406	3,653,067	12	367	257	324	–	32	219	295	273	.93	20
Leicester, . .	3,414	2,362,382	20	774	598	718	3	58	556	630	572	.91	28

Leominster, . .	14,297	10,526,295	58	2,740	1,885	2,404	14	251	1,578	2,186	2,066	.96	131
Lunenburg, . .	1,293	1,056,237	8	225	187	229	–	20	163	208	185	.91	5
Mendon, . .	922	648,450	6	140	116	157	–	17	101	155	143	.92	16
Milford, . .	12,105	7,001,160	45	2,176	1,488	1,971	8	198	1,262	1,790	1,716	.96	60
Millbury, . .	4,631	2,300,185	19	918	726	885	–	57	628	778	723	.93	42
New Braintree, .	477	395,615	5	88	69	90	1	1	71	77	71	.92	–
Northborough, .	1,947	1,326,805	9	332	234	362	–	40	256	328	293	.89	18
Northbridge, .	7,400	4,248,095	35	1,580	1,113	1,627	1	101	1,116	1,479	1,413	.95	43
North Brookfield, .	2,617	1,589,980	10	488	321	418	–	5	262	402	376	.94	29
Oakham, . .	519	348,887	5	110	85	105	4	1	76	91	85	.94	2
Oxford, . .	2,927	1,869,165	19	588	487	651	6	32	447	548	512	.93	28
Paxton, . .	444	353,147	3	89	71	85	1	4	64	79	66	.83	6
Petersham, . .	855	857,156	6	136	114	164	–	34	101	150	137	.91	12
Phillipston, . .	442	277,396	4	78	65	85	1	–	61	66	62	.94	5
Princeton, . .	907	1,041,363	8	156	112	150	–	18	109	139	128	.92	7
Royalston, . .	903	499,420	7	141	117	145	–	4	117	142	130	.91	–
Rutland, . .	1,713	743,797	6	212	167	231	–	18	171	208	181	.87	–
Shrewsbury, . .	1,866	1,495,513	12	241	203	344	4	24	216	311	275	.88	16
Southborough, .	1,931	1,766,113	9	304	202	343	2	50	210	317	295	.93	19
Southbridge, . .	11,000	5,332,864	30	2,109	1,628	1,185	4	136	732	1,016	933	.92	34
Spencer, . .	7,121	3,582,990	27	1,124	815	956	15	102	621	846	769	.91	62
Sterling, . .	1,315	988,335	10	213	170	225	–	25	148	205	184	.90	12
Sturbridge, . .	1,974	1,053,403	12	373	326	346	4	2	277	315	283	.90	–
Sutton, . .	3,173	1,231,987	15	642	595	559	–	7	370	402	352	.88	18
Templeton, . .	3,783	1,594,837	16	702	499	647	4	64	443	591	531	.90	24
Upton, . . .	2,024	1,102,808	9	307	222	345	–	47	266	317	297	.94	21
Uxbridge, . .	3,881	2,824,358	26	809	570	876	3	61	608	784	717	.91	4
Warren, . .	4,300	1,896,849	15	791	533	620	9	73	377	575	552	.96	30
Webster, . .	10,018	6,589,705	23	2,105	1,851	862	8	64	697	771	720	.93	70
Westborough, .	5,378	3,182,734	15	665	465	818	5	90	565	691	645	.93	33
West Boylston, .	1,571	751,912	7	196	140	218	1	30	139	205	190	.93	10
West Brookfield, .	1,384	996,223	7	197	139	169	2	7	118	157	148	.98	12
Westminster, .	1,348	771,255	11	271	232	266	–	25	194	263	244	.93	12
Winchendon, .	5,933	3,962,950	28	1,162	704	1,142	1	109	1,032	997	927	.93	67
Worcester, . .	128,135	129,323,426	471	22,589	16,064	23,268	780	2,069	15,229	20,511	18,618	.91	793
Totals, . .	362,668	$283,480,855	1,458	66,111	48,505	60,636	982	5,562	40,878	54,175	49,874	.92	2,426

WORCESTER COUNTY — Continued.

TOWNS AND CITIES.	Teachers and Teachers' Wages.							Length of Schooling.		High Schools.						
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.												
Ashburnham, . .	1	9	9	–	5	$60 00	$41 08	96–10	8–15	1	15	49	22	5	9–10	$1,785 75
Athol, . .	3	30	5	–	15	101 05	48 00	251–13	9–6	1	7	170	68	21	9–9	7,150 00
Auburn, . .	–	12	–	–	4	–	46 00	106–15	8–16	–	–	–	–	–	–	–
Barre, . .	1	15	3	1	10	120 00	42 43	115	8–16	1	4	64	16	12	9–17	3,724 00
Berlin, . .	–	7	–	–	2	–	36 57	43–11	8–14	–	–	–	–	–	–	–
Blackstone, .	1	34	2	–	–	100 00	46 14	254	9–15	1	3	65	47	11	10	2,450 00
Bolton, . .	1	4	2	–	2	60 00	45 56	36	9	1	2	22	4	6	9–15	1,693 69
Boylston, . .	–	4	–	–	3	–	48 00	36–8	9–2	–	–	–	–	–	–	–
Brookfield, .	1	16	2	1	7	120 00	43 00	144	9	1	2	42	7	9	10	2,282 45
Charlton, . .	1	15	2	–	2	90 00	36 80	126–10	8–9	1	2	36	9	2	9–16	1,624 45
Clinton, . .	4	55	7	–	13	115 00	58 47	427–3	9–6	1	9	217	73	23	9–7	8,925 00
Dana, . .	–	5	–	–	5	–	41 00	45	9	–	–	–	–	–	–	–
Douglas, . .	1	11	2	1	4	100 00	40 60	88–16	8–17	1	2	32	14	5	10	1,440 00
Dudley, . .	3	17	4	–	5	133 33	38 34	123–8	8–16	1	4	23	4	4	9–10	1,144 08
Fitchburg, . .	16	113	20	1	55	125 50	63 65	1,007	9–10	1	25	651	232	72	9–15	31,000 00
Gardner, . .	2	52	10	–	27	145 00	53 66	352–10	9–1	1	12	334	77	40	9–16	14,705 00
Grafton, . .	1	24	4	–	19	134 89	45 08	173–12	8–13	1	4	114	45	11	9–4	5,802 15
Hardwick, . .	2	15	3	1	11	89 00	44 53	124–2	8–17	1	4	58	17	6	9–14	4,185 58
Harvard, . .	–	4	–	–	2	–	47 16	37–12	9–8	1[1]	3	33	7	7	8–15	4,100 00
Holden, . .	1	17	2	–	7	107 68	41 00	142	8–18	1	3	64	15	8	9–15	2,424 36
Hopedale, . .	1	13	2	1	4	120 00	59 54	105–8	8–15	1	2	49	20	8	9–11	2,984 00
Hubbardston, .	1	7	1	–	5	64 00	37 00	70–16	8–17	1	1	13	8	5	9–7	712 00
Lancaster, . .	1	14	2	–	6	130 00	52 35	109–17	9–3	1	3	50	49	2	9–13	3,412 62
Leicester, . .	2	21	4	1	9	105 00	44 50	179–2	8–19	1	4	57	20	4	9–19	3,556 51

Leominster, .	8	67	11	–	31	136 25	55 07	496–8	9–6	1	12	293	128	34	9–14	15,710 22
Lunenburg, .	1	8	2	–	7	80 00	41 12	71–4	8–18	1	2	35	7	1	10	1,349 30
Mendon, . .	1	6	2	–	1	80 00	42 66	53–7	8–18	1	2	30	9	5	9–13	1,823 00
Milford, . .	1	51	5	–	29	150 00	52 50	390–14	8–14	1	6	166	72	23	9–14	7,208 00
Millbury, . .	2	22	3	1	20	105 00	41 59	166–6	8–16	1	3	105	39	9	9–14	3,059 30
New Braintree, .	–	5	–	–	–	–	37 60	43–16	8–15	–	–	–	–	–	–	–
Northborough,	1	11	2	–	9	110 00	42 36	77–16	8–12	1	2	35	12	4	9–11	1,925 20
Northbridge, .	1	39	5	2	26	160 00	50 21	333	9–10	1	6	112	41	23	10	5,260 00
North Brookfield,	1	11	3	–	4	100 00	42 33	91–5	9–2	1	3	59	14	12	9–17	2,630 67
Oakham, . .	–	5	–	–	1	–	40 55	40	8	–	–	–	–	–	–	–
Oxford, . .	1	20	3	–	16	100 00	40 00	161–18	8–10	1	3	55	28	4	9–14	2,775 31
Paxton, . .	–	3	–	–	3	–	32 00	28	9–7	–	–	–	–	–	–	–
Petersham, .	1	7	2	–	4	86 00	48 00	53–10	8–18	1	3	37	16	5	10	2,500 00
Phillipston, .	–	4	–	–	3	–	43 00	37–15	9–8	–	–	–	–	–	–	–
Princeton, . .	1	8	2	–	5	72 50	40 40	69–5	8–13	1	2	37	7	4	9–15	1,975 41
Royalston, .	1	6	–	–	1	56 00	41 00	59–17	8–19	–	–	–	–	–	–	–
Rutland, . .	1	6	2	–	5	72 00	41 33	51–17	8–5	1	2	31	8	2	9–18	1,328 50
Shrewsbury, .	1	12	2	–	8	100 00	40 67	104–12	8–14	1	2	36	16	3	9–12	1,976 40
Southborough, .	1	11	3	–	9	108 00	45 88	80–1	8–17	1	3	44	14	10	9–12	2,815 44
Southbridge, .	2	36	5	–	14	107 50	47 18	294	9–16	1	5	114	39	19	9–16	5,216 85
Spencer, . .	3	27	3	–	8	104 99	55 34	249–8	9–5	1	4	101	40	16	9–11	4,692 00
Sterling, . .	1	10	2	–	7	75 00	33 50	86–19	8–14	1	2	49	9	7	9–13	1,625 00
Sturbridge, .	–	12	–	–	2	–	39 00	106–12	8–17	–	–	–	–	–	–	–
Sutton, . .	1	16	2	2	3	60 00	37 52	145 00	9–13	1	1	28	7	–	10	860 00
Templeton, .	1	17	2	–	3	100 00	38 66	137–17	8–12	1	3	67	22	10	9–14	2,507 79
Upton, . .	1	10	3	–	6	100 00	40 92	74–3	8–5	1	3	78	21	7	9–3	2,531 71
Uxbridge, . .	2	26	2	1	10	100 00	42 60	229	8–16	1	3	51	24	9	10	–
Warren, . .	2	16	4	1	7	106 84	45 68	132–12	8–16	1	4	93	36	10	9–15	4,015 18
Webster, . .	1	30	6	3	12	117 50	49 60	226–4	9–16	1	5	78	70	11	9	7,394 12
Westborough, .	2	17	4	–	7	95 00	57 21	128–9	8–11	1	4	84	25	11	9–13	4,244 60
West Boylston, .	1	7	2	–	3	130 00	51 29	63–19	9–3	1	2	31	10	6	9–16	3,060 48
West Brookfield,	–	7	–	–	–	–	43 44	62–13	8–18	–	–	–	–	–	–	–
Westminster, .	–	11	–	–	7	–	35 27	89	8–19	1	1	23	10	8	9	675 00
Winchendon, .	1	32	5	1	22	170 00	53 42	245	8–15	1	6	134	42	11	9–12	7,449 96
Worcester, . .	77	582	71	20	479	153 01	66 50	4,710	10	3	87	2,303	647	269	10 10 10	129,630 47
Totals, .	162	1,672	244	38	994	$131 47	$55 06	13,588	9–6	50	292	6,452	2,167	794	9–14	$331,341 55

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[1] Bromfield School.

WORCESTER COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Ashburnham,	$5,346 50	$404 00	$1,168 59	$93 42	$622 02	$644 53	$231 67	$8,510 73	$1,414 17	$7,096 56
Athol,	18,313 92	1,906 63	5,624 74	42 75	2,000 00	1,842 25	1,892 05	31,622 34	1,011 95	30,610 39
Auburn,	6,110 60	121 70	795 60	147 00	540 00	521 52	141 00	8,377 42	1,882 40	6,495 02
Barre,	7,655 80	1,474 40	1,953 22	–	640 00	1,306 94	431 24	13,461 60	1,952 99	11,508 61
Berlin,	3,714 95	390 25	827 66	70 00	257 76	228 83	71 23	5,560 68	2,731 66	2,829 02
Blackstone,	14,293 50	–	2,555 45	60 00	888 88	1,021 44	350 75	19,170 02	1,033 41	18,136 61
Bolton,	2,420 23	1,512 00	304 67	39 50	342 86	249 88	50 00	4,919 14	2,801 00	2,118 14
Boylston,	2,633 50	2,113 30	855 33	70 00	285 72	256 21	47 39	6,261 45	2,677 90	3,583 55
Brookfield,	7,609 50	97 50	1,622 58	180 00	750 00	573 59	115 79	10.948 96	1,937 41	9,011 55
Charlton,	5,606 65	138 60	647 09	97 25	750 00	425 40	95 10	7,760 09	1,612 67	6,147 42
Clinton,	35,264 69	–	7,906 40	1,400 00	2,000 00	4,513 42	2,257 82	53,342 33	–	53,342 33
Dana,	2,751 00	793 00	835 55	113 25	395 33	308 70	30 91	5,227 74	2,407 36	2,820 38
Douglas,	4,694 25	408 50	1,322 99	90 00	660 00	444 19	208 08	7,828 01	1,959 29	5,868 72
Dudley,	8,199 95	–	1,506 10	113 00	700 00	699 10	310 62	11,528 77	1,716 00	9,812 77
Fitchburg,	93,550 67	2,316 45	19,552 83	1,825 00	2,700 00	7,436 29	4,341 23	131,722 47	709 00	131,013 47
Gardner,	30,275 06	1,185 00	6,551 98	39 50	2,100 00	4,096 55	1,455 96	45,704 05	249 13	45,454 92
Grafton,	12,234 02	3,270 67	3,621 62	232 88	1,468 75	1,099 17	352 40	22,279 51	937 50	21,342 01
Hardwick,	8,371 50	2,617 65	1,737 15	–	629 97	926 72	267 17	14,550 16	1,471 81	13,078 35
Harvard,	2,066 35	3,516 15	560 26	–	498 13	296 16	129 13	7,066 18	1,733 56	5,332 62
Holden,	7,310 43	428 25	1,688 90	75 00	800 00	492 13	272 92	11,067 63	1,481 81	9,585 82
Hopedale,	8,752 20	276 12	2,725 91	–	674 14	635 62	848 79	13,912 78	43 00	13,869 78
Hubbardston,	2,963 00	865 00	385 00	94 00	320 00	232 00	11 00	4,870 00	1,631 49	3,238 51
Lancaster,	8,549 75	1,439 15	2,349 36	–	815 00	701 96	1,097 94	14,953 16	–	14,953 16
Leicester,	11,549 00	1,306 50	2,655 23	78 75	750 00	913 50	638 21	17,891 19	3,032 19	14,859 00

Leominster, .	42,317 23	1,575 44	14,297 78	1,277 18	2,200 00	4,845 65	2,156 05	68,669 33	1,505 43	67,163 90
Lunenburg, .	4,184 30	365 00	639 13	135 50	498 00	257 99	57 64	6,137 56	1,724 49	4,413 07
Mendon, . .	3,178 00	626 00	897 25	–	662 47	297 70	209 03	5,870 45	2,175 07	3,695 38
Milford, . .	25,685 31	710 50	5,930 72	50 00	1,800 00	2,393 80	2,338 72	38,909 05	–	38,909 05
Millbury, . .	11,647 86	572 89	2,122 46	163 50	1,020 00	1,197 32	1,223 14	17,947 17	1,613 12	16,334 05
New Braintree, .	1,576 85	181 30	238 90	18 00	465 00	282 54	81 83	2,844 42	1,719 81	1,124 61
Northborough, .	5,575 78	1,311 19	1,176 64	107 00	471 24	716 86	133 45	9,492 16	2,099 88	7,392 28
Northbridge, .	21,383 65	968 28	5,669 70	41 50	750 00	1,899 98	1,450 62	32,163 73	97 00	32,066 73
North Brookfield,	6,414 65	1,556 00	840 12	60 00	750 00	613 70	143 26	10,377 73	2,140 41	8,237 32
Oakham, . .	1,749 00	53 76	205 70	104 50	231 25	247 78	37 50	2,629 49	1,695 20	934 29
Oxford, . .	9,468 05	304 00	3,006 12	190 75	686 67	1,634 11	734 91	16,024 61	1,896 07	14,128 54
Paxton, . .	1,552 20	607 50	472 77	47 10	142 52	130 46	9 15	2,961 70	1,761 70	1,200 00
Petersham, .	4,527 91	1,726 00	1,016 94	70 00	320 00	553 26	81 31	8,295 42	2,352 99	5,942 43
Phillipston, .	1,831 00	376 00	122 87	55 00	157 47	94 63	21 12	2,658 09	1,457 26	1,200 83
Princeton, . .	3,543 69	690 20	1,005 12	40 00	300 00	510 06	33 00	6,122 07	1,463 41	4,658 66
Royalston, . .	2,963 50	1,172 33	438 82	105 00	316 36	701 15	20 00	5,717 16	2,370 35	3,346 81
Rutland, . .	2,920 50	1,601 30	801 61	68 00	385 44	289 46	194 54	6,260 85	2,068 29	4,192 56
Shrewsbury, .	6,411 40	1,069 50	1,131 06	146 50	599 76	586 13	374 39	10,318 74	1,965 41	8,353 33
Southborough, .	6,227 69	1,466 00	1,722 44	150 00	514 08	841 15	496 55	11,417 91	1,906 49	9,511 42
Southbridge, .	18,700 30	403 50	4,175 46	145 00	1,000 00	1,910 36	1,584 76	27,919 38	540 00	27,379 38
Spencer, . .	16,040 48	801 42	3,933 35	38 04	1,625 50	1,167 92	401 33	24,008 04	386 18	23,621 86
Sterling, . .	4,275 30	703 90	504 47	60 00	600 00	445 60	168 43	6,757 70	2,635 14	4,122 56
Sturbridge, .	5,204 70	1,713 75	801 33	–	618 92	539 82	51 65	8,930 17	1,685 41	7,244 76
Sutton, . .	5,562 50	424 00	1,382 23	150 00	960 00	536 48	341 61	9,356 82	2,052 51	7,304 31
Templeton, .	7,225 38	1,322 50	1,775 99	165 83	787 53	564 35	41 50	11,883 08	2,017 15	9,865 93
Upton, . .	4,720 90	1,347 58	1,429 34	14 05	504 16	502 16	124 45	8,642 64	1,961 80	6,680 84
Uxbridge, . .	12,861 20	32 25	3,144 04	71 68	990 00	1,418 73	1,153 91	19,671 81	2,043 77	17,628 04
Warren, . .	10,049 40	2,071 30	2,109 93	12 50	1,280 00	1,183 54	792 47	17,499 14	2,943 40	14,555 74
Webster, . .	16,710 60	123 25	4,378 58	65 00	1,400 00	1,557 12	1,419 77	25,654 32	475 37	25,178 95
Westborough, .	11,179 60	2,233 43	2,587 67	50 00	600 00	671 84	556 86	17,879 40	141 65	17,737 75
West Boylston, .	5,118 78	2,009 65	1,291 02	150 00	825 00	453 91	236 27	10,084 63	2,835 62	7,249 01
West Brookfield, .	3,656 75	710 00	507 00	–	465 00	364 75	262 69	5,966 19	1,949 15	4,017 04
Westminster, .	3,631 00	644 00	410 55	78 00	600 00	384 73	56 67	5,804 95	1,585 95	4,219 00
Winchendon, .	18,736 30	1,624 70	4,660 66	86 55	1,344 32	1,680 23	1,164 49	29,297 25	8,283 29	21,013 96
Worcester, . .	522,244 26	1,146 12	97,832 03	9,322 27	6,000 00	37,689 77	16,758 04	690,992 49	5,007 99	685,984 50
Totals, .	$1,139,313 04	$60,825 36	$242,414 01	$18,099 75	$53,459 25	$99,031 14	$50,559 51	$1,663,702 06	$104,984 46	$1,558,717 60

WORCESTER COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Ashburnham,	–	$11 50	$247 05	$258 55	–	$258 55	$7,355 11	–	–	–
Athol,	–	–	1,348 22	1,348 22	–	1,348 22	31,958 61	$1,000 00	$115 55	–
Auburn,	$6,047 16	531 72	257 80	6,836 68	–	6,836 68	13,331 70	–	–	$317 73
Barre,	–	–	543 48	543 48	–	543 48	12,052 09	–	–	330 01
Berlin,	–	–	70 74	70 74	–	70 74	2,899 76	1,500 00	60 30	–
Blackstone,	–	–	–	–	–	–	18,136 61	–	–	–
Bolton,	–	–	23 23	23 23	–	23 23	2,141 37	12,000 00	572 73	–
Boylston,	–	–	132 78	132 78	–	132 78	3,716 33	–	–	–
Brookfield,	–	673 00	476 18	1,149 18	–	1,149 18	10,160 73	–	–	325 21
Charlton,	–	–	114 91	114 91	–	114 91	6,262 33	3,000 00	120 00	146 08
Clinton,	–	–	3,406 38	3,406 38	–	3,406 38	56,748 71	5,000 00	175 00	–
Dana,	–	–	156 66	156 66	–	156 66	2,977 04	–	–	143 65
Douglas,	–	–	239 33	239 33	–	239 33	6,108 05	941 33	56 48	–
Dudley,	–	39 30	171 89	211 19	–	211 19	10,023 96	–	–	315 60
Fitchburg,	–	25,938 90	4,638 44	30,577 34	–	30,577 34	161,590 81	–	–	–
Gardner,	–	1,173 06	5,189 45	6,362 51	–	6,362 51	51,817 43	–	–	–
Grafton,	5,450 00	368 36	492 28	6,310 64	–	6,310 64	27,652 65	–	–	–
Hardwick,	–	–	1,207 49	1,207 49	–	1,207 49	14,285 84	200 00	8 00	1,277 62
Harvard,	–	–	27 33	27 33	–	27 33	5,359 95	–	–	198 12
Holden,	–	273 34	299 18	572 52	–	572 52	10,158 34	3,666 66	202 00	461 28
Hopedale,	–	22,976 31	736 68	23,712 99	–	23,712 99	37,582 77	–	–	–
Hubbardston,	–	209 00	258 00	467 00	–	467 00	3,705 51	1,200 00	72 00	–
Lancaster,	–	–	557 44	557 44	–	557 44	15,510 60	–	–	–
Leicester,	–	–	1,329 87	1,329 87	$914 18	415 69	15,274 69	–	–	410 11

Leominster,	–	4,744 46	1,435 71	6,180 17	–	6,180 17	73,344 07	13,000 00	570 00	–
Lunenburg,	–	5,877 17	187 10	6,064 27	–	6,064 27	10,477 34	–	–	–
Mendon,	–	234 02	106 55	340 57	–	340 57	4,035 95	–	–	188 50
Milford,	–	–	1,263 83	1,263 83	–	1,263 83	40,172 88	–	–	–
Millbury,	–	174 85	836 92	1,011 77	–	1,011 77	17,345 82	–	–	–
New Braintree,	–	348 58	–	348 58	–	348 58	1,473 19	–	–	–
Northborough,	–	–	714 72	714 72	–	714 72	8,107 00	5,400 00	270 00	–
Northbridge,	–	1,477 36	3,492 11	4,969 47	–	4,969 47	37,036 20	–	–	581 53
North Brookfield,	–	–	535 44	535 44	–	535 44	8,772 76	–	–	395 69
Oakham,	–	–	56 69	56 69	–	56 69	990 98	–	–	2 58
Oxford,	–	–	788 05	788 05	–	788 05	14,916 59	–	–	–
Paxton,	–	–	–	–	–	–	1,200 00	–	–	–
Petersham,	–	670 16	114 02	784 18	–	784 18	6,726 61	781 68	31 56	153 26
Phillipston,	–	–	22 25	22 25	–	22 25	1,223 08	–	–	87 58
Princeton,	–	96 82	231 00	327 82	–	327 82	4,986 48	–	60 00	211 66
Royalston,	–	–	103 37	103 37	–	103 37	3,450 18	6,500 00	306 36	137 24
Rutland,	–	–	114 95	114 95	–	114 95	4,307 51	–	–	–
Shrewsbury,	–	697 82	486 00	1,183 82	–	1,183 82	9,537 15	1,000 00	81 60	–
Southborough,	–	–	385 14	385 14	–	385 14	9,896 56	–	–	185 83
Southbridge,	–	73 33	848 36	921 69	–	921 69	28,301 07	–	–	–
Spencer,	–	75 00	2,203 70	2,278 70	–	2,278 70	25,900 56	–	–	609 29
Sterling,	–	617 98	443 39	1,061 37	–	1,061 37	5,183 93	15,043 17	622 08	159 13
Sturbridge,	–	–	134 50	134 50	–	134 50	7,379 26	–	–	350 28
Sutton,	12,690 74	449 40	250 03	13,390 17	–	13,390 17	20,694 48	2,000 00	114 00	441 62
Templeton,	–	43 20	787 76	831 96	–	831 96	10,697 89	–	–	446 42
Upton,	–	–	212 02	212 02	42 00	170 02	6,850 86	–	400 00	351 37
Uxbridge,	–	–	1,582 63	1,582 63	–	1,582 63	19,210 67	43,741 75	1,527 40	–
Warren,	–	225 00	313 46	538 46	–	538 46	15,094 20	–	–	–
Webster,	–	420 00	315 40	735 40	–	735 40	25,914 35	–	–	622 64
Westborough,	739 20	3,004 53	503 11	4,246 84	–	4,246 84	21,984 59	–	–	–
West Boylston,	–	5,851 59	202 81	6,054 40	–	6,054 40	13,303 41	–	–	7,600 00
West Brookfield,	–	146 96	35 99	182 95	–	182 95	4,199 99	–	–	–
Westminster,	–	–	357 62	357 62	–	357 62	4,576 62	–	–	–
Winchendon,	–	2,115 29	217 01	2,332 30	364 01	1,968 29	22,982 25	275,000 00	7,968 29	–
Worcester,	65,087 64	21,151 43	27,664 88	113,903 95	1,448 26	112,455 69	798,440 19	2,615 93	102 98	–
Totals,	$90,015 74	$100,689 44	$68,871 33	$259,576 51	$2,768 45	$256,808 06	$1,815,525 66	$393,590 52	$13,436 33	$16,450 03

WORCESTER COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1909.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Ashburnham,	$1,018 81	–	1	160	–	–	$10,000 00	–	$352,000 00	$13,000 00
Athol,	–	–	–	–	–	–	–	–	–	–
Auburn,	868 81	–	–	–	–	–	–	–	–	–
Barre,	1,108 41	–	–	–	1	37	–	–	10,000 00	2,000 00
Berlin,	1,258 41	–	–	–	–	–	–	–	–	–
Blackstone,	1,033 41	–	–	–	–	–	–	–	–	–
Bolton,	1,218 81	–	–	–	–	–	–	–	–	–
Boylston,	1,458 41	–	–	–	–	–	–	–	–	–
Brookfield,	1,108 41	–	–	–	–	–	–	–	–	–
Charlton,	1,108 41	–	–	–	–	–	–	–	–	–
Clinton,	–	–	–	–	–	–	–	–	–	–
Dana,	1,458 41	–	–	–	–	–	–	–	–	–
Douglas,	868 81	–	–	–	–	–	–	–	–	–
Dudley,	1,108 41	–	1	23	–	–	600 00	–	33,000 00	1,890 00
Fitchburg,	–	–	–	–	–	–	–	–	–	–
Gardner,	–	–	–	–	1	648	–	–	22,150 00	–
Grafton,	–	–	–	–	–	–	–	–	–	–
Hardwick,	868 81	–	–	–	1	210	–	–	–	–
Harvard,	1,108 41	–	–	–	–	–	–	–	102,000 00	5,000 00
Holden,	868 81	–	–	–	–	–	–	–	–	–
Hopedale,	–	–	–	–	–	–	–	–	–	–
Hubbardston,	1,018 81	–	–	–	–	–	–	–	–	–
Lancaster,	–	$1,100 00	1	304	–	–	6,750 00	–	30,060 42	–
Leicester,	1,033 41	–	–	–	1	68	–	–	–	–

Leominster,	–	–	–	–	1	532	–	–	25,000 00	–
Lunenburg,	868 81	–	–	–	–	–	–	–	–	–
Mendon,	1,258 41	–	–	–	–	–	–	–	–	–
Milford,	–	–	–	–	1	380	–	–	–	–
Millbury,	793 81	–	–	–	1	136	–	–	18,000 00	1,000 00
New Braintree,	1,218 81	–	–	–	–	–	–	–	–	–
Northborough,	1,108 41	–	–	–	–	–	–	–	–	–
Northbridge,	–	–	–	–	–	–	–	–	–	–
North Brookfield,	1,108 41	–	–	–	1	87	–	–	–	–
Oakham,	979 20	–	–	–	–	–	–	–	–	–
Oxford,	1,108 41	–	–	–	–	–	–	–	–	–
Paxton,	1,075 04	–	–	–	–	–	–	–	–	–
Petersham,	1,258 41	1,025 00	–	–	–	–	–	–	–	–
Phillipston,	1,150 04	–	–	–	–	–	–	–	–	–
Princeton,	1,108 41	15 00	–	–	–	–	–	–	–	–
Royalston,	1,458 41	–	–	–	–	–	–	–	–	–
Rutland,	875 04	–	–	–	–	–	–	–	–	–
Shrewsbury,	1,108 41	–	–	–	–	–	–	–	–	–
Southborough,	1,108 41	–	1	135	1	76	104,000 00	$11,400 00	22,500 00	950 00
Southbridge,	–	–	–	–	2	1,041	–	–	–	–
Spencer,	–	–	–	–	1	372	–	1.400 00	–	–
Sterling,	1,018 80	8 00	–	–	–	–	–	–	–	–
Sturbridge,	1,258 41	–	–	–	–	–	–	–	–	–
Sutton,	868 80	–	–	–	1	172	–	1,000 00	7,000 00	–
Templeton,	868 80	–	–	–	–	–	–	–	–	–
Upton,	868 80	–	–	–	–	–	–	–	–	–
Uxbridge,	–	–	–	–	–	–	–	–	–	–
Warren,	1,108 40	–	–	–	–	–	–	–	–	–
Webster,	–	–	–	–	4	1,355	–	–	–	–
Westborough,	–	–	–	–	–	–	–	–	–	–
West Boylston,	1,258 40	–	–	–	–	–	–	–	–	–
West Brookfield,	1,018 80	–	–	–	–	–	–	–	–	–
Westminster,	1,018 80	–	–	–	–	–	–	–	–	–
Winchendon,	–	–	–	–	–	–	–	–	–	–
Worcester,	–	1,335 00	1	256	13	4,494	–	11,000 00	189,900 00	9,870 00
Totals,	$45,390 22	$3,483 00	5	878	30	9,608	$121,350 00	$24,800 00	$811,610 42	$33.710 00

RECAPITULATION.

COUNTIES.	Population — State Census of 1905.	Valuation — May 1, 1908.	No. of public schools.	School Census Data Sept. 1, 1908.		School Membership, Attendance and Graduation Data for the School Year.							
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.	No. graduated from grammar schools.
Barnstable, . .	26,831	$28,763,992	145	4,329	3,197	4,940	34	645	3,227	4,487	4,171	.93	283
Berkshire, . .	98,330	76,433,129	491	18,471	13,434	17,355	419	1,467	11,750	15,318	14,121	.92	635
Bristol, . .	269,257	228,240,799	989	52,691	37,947	43,817	494	2,731	30,582	38,009	35,208	.93	1,261
Dukes, . .	4,551	5,454,506	25	728	553	850	1	78	574	708	640	.90	30
Essex, . . .	381,181	355,385,738	1,394	67,882	49,054	61,090	774	5,877	40,345	55,279	51,574	.93	2,895
Franklin, . .	43,362	29,137,460	268	7,351	5,500	7,838	68	648	5,344	7,083	6,511	.92	401
Hampden, . .	196,013	189,608,614	812	37,826	28,049	34,478	1,532	3,183	21,375	30,035	27,682	.92	1,270
Hampshire, . .	62,227	38,934,015	315	10,837	8,163	10,495	188	988	7,144	9,346	8,618	.92	426
Middlesex, . .	608,499	607,678,744	2,329	107,795	77,048	111,403	2,837	11,924	70,471	100,391	93,236	.93	5,596
Nantucket, . .	2,930	3,337,130	11	413	304	504	–	47	322	443	390	.88	29
Norfolk, . .	167,537	261,376,248	743	31,953	24,512	32,362	873	3,240	20,735	29,438	27,300	.93	1,783
Plymouth, . .	127,932	108,510,923	575	21,503	15,913	23,642	99	2,387	15,729	21,768	20,363	.94	1,283
Suffolk, . .	652,362	1,374,347,953	2,122	120,670	81,262	121,034	3,286	11,369	69,839	106,896	96,871	.91	6,960
Worcester, . .	362,668	283,480,855	1,458	66,111	48,505	60,636	982	5,562	40,878	54,175	49,874	.92	2,426
State, . .	3,003,680	$3,590,690,106	11,677	548,560	393,441	530,444	11,587	50,146	338,315	473,376	436,559	.92	25,278

RECAPITULATION — Continued.

COUNTIES.	Teachers and Teachers' Wages.							Length of Schooling.		High Schools.						
	Number of teachers required by the public schools.		Number of teachers who have graduated from college.													
	Men.	Women.	In high schools.	In elementary schools.	No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.
Barnstable, .	26	146	26	6	83	$83 54	$46 67	1,275–19	8–15	14	32	715	263	108	9–8	$35,083 38
Berkshire, . .	39	552	55	6	249	102 79	49 02	4,537–15	9–4	11	63	1,566	616	226	9–11	69,911 40
Bristol, . .	84	1,165	75	35	508	134 53	57 38	9,350–3	9–9	14	104	2,507	941	398	9–14	133,125 57
Dukes, . .	5	25	7	1	10	73 37	43 91	213–9	8–10	4	7	106	24	25	9–7	4,668 99
Essex, . .	125	1,674	214	47	733	140 32	58 46	13,291–17	9–10	29	272	6,689	2,466	910	9–11	343,052 59
Franklin, . .	12	292	36	4	127	118 00	44 42	2,359–19	8–17	12	42	1,023	365	121	9–14	45,614 32
Hampden, . .	76	959	127	46	597	144 99	59 30	7,615–13	9–7	11	143	3,225	1,124	450	9–12	195,410 02
Hampshire, .	21	346	47	17	143	97 40	44 51	2,855	9–1	11	49	1,126	362	167	9–14	48,302 56
Middlesex, . .	273	2,828	376	120	1,398	154 16	64 43	21,576–8	9–5	48	509	13.280	4,886	1,747	9–10	660,227 19
Nantucket, .	1	17	1	–	4	100 00	33 50	101–10	9–5	1	4	58	28	12	9–9	2,825 59
Norfolk, . .	95	892	145	36	465	137 99	60 75	6,804–9	9–3	27	170	4,118	1,647	538	9–9	217,244 59
Plymouth, . .	61	614	92	11	353	121 49	53 47	5,236–13	9–2	20	128	2,852	1,031	365	9–12	150,381 66
Suffolk, . .	361	2,570	238	118	2,060	191 54	73 05	19,907–7	9–7	18	364	10,241	4,420	1,945	9–6	801,062 19
Worcester, .	162	1,672	244	38	994	131 47	55 06	13,588	9–6	50	292	6,452	2,167	794	9–14	331,341 55
State, . .	1,341	13,752	1,683	485	7,724	$151 39	$60 68	108,714–2	9–6	270	2,179	53,958	20,340	7,806	9–11	$3,038,251 60

RECAPITULATION — CONTINUED.

COUNTIES.	Expenditures for the Support of Public Schools.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Barnstable, . .	$85,991 45	$16,008 57	$18,454 18	$1,566 71	$9,274 89	$9,576 40	$3,138 38	$144,010 58	$26,928 78	$117,081 80
Berkshire, . .	316,501 07	11,630 69	60,810 29	5,514 80	22,561 08	26,596 06	13,172 17	456,786 16	42,816 48	413,969 68
Bristol, . .	800,970 54	16,261 59	171,045 54	17,044 35	24,757 15	60,667 03	39,459 36	1,130,205 56	72,132 07	1,058,073 49
Dukes, . .	13,515 66	988 79	2,104 25	398 25	1,633 21	1,075 01	782 71	20,497 88	8,442 90	12,054 98
Essex, . .	1,184,367 13	21,077 20	223,096 06	21,339 41	39,229 32	103,933 55	50,282 25	1,643,324 92	39,321 15	1,604,003 77
Franklin, . .	132,578 57	20,316 70	24,704 14	1,424 00	14,746 73	12,163 34	6,586 63	212,520 11	50,300 85	162,219 26
Hampden, . .	728,352 38	15,363 37	151,343 93	15,639 12	25,444 46	67,817 64	30,995 23	1,034,956 13	55,600 87	979,355 26
Hampshire, .	175,640 10	10,694 84	38,277 83	2,245 17	15,685 84	15,665 24	6,891 74	265,100 76	45,962 59	219,138 17
Middlesex, . .	2,296,164 69	58,141 27	458,666 88	33,268 45	68,808 37	199,353 00	68,745 56	3,183,148 22	74,504 64	3,108,643 58
Nantucket, .	7,070 75	–	824 55	125 00	400 00	797 27	527 03	9,744 60	22 25	9,722 35
Norfolk, . .	676,303 64	32,533 35	137,344 95	7,438 42	34,914 33	68,661 25	35,322 43	992,518 37	32,718 39	959,799 98
Plymouth, . .	428,974 06	28,086 60	94,266 50	5,726 04	24,236 08	43,928 79	21,940 40	647,158 47	40,662 78	606,495 69
Suffolk, . .	3,186,443 93	285 00	419,911 81	74,657 88	40,108 38	151,717 61	43,287 54	3,916,412 15	61,620 08	3,854,792 07
Worcester, . .	1,139,313 04	60,825 36	242,414 01	18,099 75	53,459 25	99,031 14	50,559 51	1,663,702 06	104,984 46	1,558,717 60
State, . .	$11,172,187 01	$292,213 33	$2,043,264 92	$204,487 35	$375,259 09	$860,983 33	$371,690 94	$15,320,085 97	$656,018 29	$14,664,067 68

RECAPITULATION — CONTINUED.

COUNTIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Barnstable,	$14,456 67	$2,007 78	$9,765 54	$26,229 99	–	$26,229 99	$143,311 79	$26,000 00	$1,244 32	$1,562 17
Berkshire,	117,024 15	31,791 07	15,951 95	164,767 17	$5,715 15	159,052 02	573,021 70	4,265 50	265 37	1,831 54
Bristol,	312,006 46	23,218 19	61,225 67	396,450 32	256 59	396,193 73	1,454,267 22	213,500 00	13,795 60	10,492 69
Dukes,	–	476 80	663 81	1,140 61	–	1,140 61	13,195 59	–	–	373 79
Essex,	207,281 67	72,192 71	93,463 95	372,938 33	16,000 00	356,938 33	1,960,942 10	151,776 77	8,264 52	8,443 06
Franklin,	21,467 49	6,326 64	6,403 18	34,197 31	1,262 24	32,935 07	195,154 33	57,733 67	2,776 07	1,086 63
Hampden,	209,080 33	34,495 50	39,393 02	282,968 85	481 87	282,486 98	1,261,842 24	37,538 00	1,957 76	4,948 87
Hampshire,	–	6,505 87	9,276 00	15,781 87	150 85	15,631 02	234,769 19	24,104 00	1,137 34	3,410 39
Middlesex,	632,047 56	83,803 36	164,061 69	879,912 61	1,833 77	878,078 84	3,986,722 42	117,225 38	6,433 42	10,412 17
Nantucket,	–	–	541 64	541 64	–	541 64	10,263 99	–	–	286 25
Norfolk,	104,309 29	28,550 36	40,960 13	173,819 78	–	173,819 78	1,133,619 76	55,842 70	2,739 28	6,143 81
Plymouth,	95,247 52	57,397 27	20,888 50	173,533 29	–	173,533 29	780,028 98	33,023 50	1,206 61	7,890 19
Suffolk,	898,197 92	371,874 83	5,869 44	1,275,942 19	–	1,275,942 19	5,130,734 26	128,157 00	4,611 31	68,727 97
Worcester,	90,015 74	100,689 44	68,871 33	259,576 51	2,768 45	256,808 06	1,815,525 66	393,590 52	13,436 33	16,450 03
State,	$2,701,134 80	$819,329 82	$537,335 85	$4,057,800 47	$28,468 92	$4,029,331 55	$18,693,399 23	$1,242,757 04	$57,867 93	$142,059 56

RECAPITULATION — CONCLUDED.

COUNTIES.	Town's share of school fund income paid Jan. 25, 1909.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Barnstable,	$10,775 57	–	–	–	–	–	–	–	–	–
Berkshire,	27,530 41	$878 00	–	–	10	2,736	–	$25,225 00	$65,000 00	–
Bristol,	11,081 90	1,280 35	6	894	26	9,921	$24,764 69	11,108 00	849,461 26	$30,591 27
Dukes,	5,275 22	–	–	–	–	–	–	–	–	–
Essex,	12,729 96	6,845 61	5	796	49	14,998	79,454 16	17,765 00	1,467,521 18	24,215 07
Franklin,	25,644 98	99 50	3	1,387	2	175	99,087 34	–	2,045,761 66	68,661 94
Hampden,	18,217 63	1,447 45	3	295	29	9,070	9,046 00	5,475 00	251,837 57	11,703 36
Hampshire,	18,911 35	148 73	3	185	7	1,352	524 00	–	542,824 42	18,325 00
Middlesex,	26,676 64	2,484 45	12	1,101	56	15,306	294,450 00	123,225 89	390,144 12	8,574 12
Nantucket,	–	–	–	–	–	–	–	–	–	–
Norfolk,	13,332 10	1,120 14	2	373	13	1,642	39,403 00	19,417 00	604,000 00	32,240 00
Plymouth,	13,873 75	628 37	–	–	6	1,125	–	12,800 00	407,351 35	16,392 71
Suffolk,	–	659 70	4	541	84	24,052	35,609 81	429,162 33	4,248,218 08	133,860 06
Worcester,	45,390 22	3,483 00	5	878	30	9,608	121,350 00	24,800 00	811,610 42	33,710 00
State,	$229,439 73	$19,075 30	43	6,450	312	89,985	$703,689 00	$668,978 22	$11,683,730 06	$378,273 53

EVENING SCHOOLS.

CITIES AND TOWNS.	No. of schools.	Attendance.			Time.	No. of teachers.	Expense.
		Males.	Females.	Average.	Average No. of evenings.		
Adams, . . .	2	117	80	120	42	11	$769 25
Ashburnham, . .	1	27	2	26	23	2	76 25
Attleborough, . .	3	235	65	144	35	13	897 46
Beverly, . . .	15	481	130	327	40	18	3,189 21
Boston, . . .	24	14,807	8,910	8,113	95	345	140,705 79
Bridgewater, . .	1	83	6	57	33	5	271 00
Brockton, . . .	29	682	340	501	60	38	5,178 31
Brookline, . .	3	124	69	104	57	9	1,813 94
Cambridge, . .	8	1,533	1,247	1,177	64	93	15,831 24
Chelsea,[1] . . .	1	608	364	414	60	22	3,197 13
Chicopee, . . .	3	307	258	383	40	37	2,554 56
Clinton, . . .	2	176	59	126	69	11	1,054 25
Dudley, . . .	1	32	33	26	49	4	292 40
Easthampton, . .	10	106	91	126	30	10	284 00
Everett, . . .	5	253	209	185	70	13	2,561 24
Fall River, . .	22	1,949	939	1,628	43	139	10,991 37
Fitchburg, . .	4	451	124	278	41	42	1,300 00
Framingham, . .	1	100	31	51	45	8	711 59
Gardner, . . .	1	214	29	187	41	24	948 50
Gloucester, . .	1	27	14	10	35	1	75 00
Greenfield, . .	1	95	25	55	51	5	275 50
Hadley, . . .	2	35	1	25	25	5	–[2]
Haverhill, . . .	5	456	256	592	60	42	2,627 50
Holyoke, . . .	6	898	580	756	58	71	9,991 41
Hudson, . . .	3	67	24	31	20	5	144 25
Hyde Park, . .	8	186	92	112	64	9	1,195 84
Lawrence, . . .	5	1,854	937	1,505	83	90	12,448 76
Leominster, . .	3	193	110	135	44	18	1,215 00
Lowell, . . .	19	2,894	1,257	2,334	68	178	24,626 78
Lynn, . . .	3	1,451	276	614	59	49	6,071 82
Malden, . . .	3	531	356	395	57	32	4,786 61
Marlborough, . .	8	204	18	163	50[1]	8[1]	622 25
Medford, . . .	1	171	66	56	43	9	999 70
Milford, . . .	1	167	50	133	33	11	882 00
Natick, . . .	1	155	6	82	36	6	493 81
New Bedford, . .	8	1,662	741	1,091	39	81	7,001 08
Newburyport, . .	1	170	60	66	62	13	647 60
Newton, . . .	3	398	104	250	65	19	3,093 05
North Adams, . .	4	284	71	149	40	12	1,300 00
Northampton, . .	3	113	20	83	60	9	751 00
North Attleborough, .	1	159	36	70	33	6	282 50
Northbridge, . .	3	83	21	69	45	6	656 25
Peabody, . . .	1	189	–	108	34	11	700 00
Pittsfield, . . .	12	411	149	167	49	14	1,501 60
Plymouth, . .	2	110	60	124	60	8	640 00
Quincy, . . .	3	346	35	139	44	10	1,500 00
Rockland, . . .	1	69	6	31	34	3	208 71
Salem, . . .	4	456	132	189	58	26	2,916 00
Somerville, . .	4	1,125	407	658	70	50	9,257 30
Southbridge, . .	4	125	91	180	40	10	766 03
South Hadley, . .	1	59	54	37	37	3	296 21
Spencer, . . .	1	43	4	23	40	3	140 03
Springfield, . .	8	1,954	765	1,229	86	92	17,742 65
Taunton, . . .	12	495	259	469	37	37	3,280 50
Uxbridge, . . .	1	28	14	38	3	2	105 00
Wakefield, . .	2	77	27	68	60	8	956 88
Waltham, . . .	3	336	102	202	53	14	2,385 00
Warren, . . .	2	56	50	62	30	5	206 34
Webster, . . .	2	87	54	75	48	7	618 25
Westfield, . . .	1	141	62	115	40	8	507 01
Woburn, . . .	5	193	23	57	38	10	585 65
Worcester, . .	18	2,095	814	1,366	106	121	29,743 74
Totals, . . .	316	42,933	21,215	28,086	3,034	1,971	$346,872 10

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[1] Figures for 1907–08.

[2] Voluntary instruction.

RETURNS OF SCHOOLS IN STATE INSTITUTIONS FOR THE SCHOOL YEAR 1908–1909.

STATE INSTITUTIONS.	No. of schools in the institution.	No. of different scholars of all ages during the year.	Average attendance during the year.	No. under 5 years of age attending school.	No. over 15 years of age attending school.	No. between 5 and 15 years in the institution at the end of the school year.	No. of Teachers during the Year.		Wages of Teachers per Month.		Length of each school.
							Males.	Females.	Males.	Females.	
State Industrial School for Girls,	11	466	260	–	426	40	–	12	–	$25.00[1] to $41.67[1]	10 mos.
Lyman School for Boys at Westborough,	9	770	408	–	152	246	3	14	$66.66[1] to $91.66[1]	$25.00[1] to $66.66[1]	44 wks.

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[1] And home.

GRADUATED TABLES.

In order to show the comparative standing of the towns and cities (1) in the taxes which they impose upon themselves for the support of their public schools, (2) in the ratio which these taxes bear to their respective valuations, and (3) in the ratio of the attendance upon the public schools to the whole number of children between five and fifteen, three graduated tables have been prepared.

For the sake of brevity as well as convenience of reference these tables may be named as follows: —

I. Graduated taxation table.
II. Graduated valuation table.
III. Graduated attendance table.

I. *Graduated Taxation Table.*

In this table the towns and cities are classified or ranked according to the amounts which they severally raise by local taxation for the school support of each child in the average membership of the public schools. It is the average membership that more than any other factor determines the expense of the schools, and it is the expenditure for each child in the average membership that more than any other factor determines a town's liberality in matters of school support. In some places large numbers of children between five and fifteen are in private schools; the amount raised for the public schools is correspondingly reduced. Consequently the amounts of the local tax for each child between five and fifteen in such places are relatively small. To use such amounts, however, as evidence of the economy or the parsimony of towns would be illogical and unjust.

Advantage is taken of this table to present important data not given in reports previous to the sixty-sixth. They are the amounts yielded for each child in the average membership by the local tax *plus* the State and other contributions. In the column next to the last, the amounts measure the local taxation burden for each child in the average membership. That is to say, the former column shows what the town unaided is doing for the child, the latter column what the child gets from all sources.

II. *Graduated Valuation Table.*

This table exhibits for the several towns and cities the ratios which the sums raised by taxation and expended for the support of the public schools bear to their respective assessed valuations. For convenience of apprehension the ratio in each case is expressed as so many dollars of tax on a thousand dollars of valuation.

III. *Graduated Attendance Table.*

This table exhibits for the several towns and cities the ratio in each case of the average attendance upon the public schools to the whole number of children between five and fifteen reported in the school census. If there are no private schools, the ratio is likely to be high. If there are no private schools and at the same time an unusually large proportion of the children under five and over fifteen are attending school, the ratio may exceed even a hundred per cent. On the other hand, if children attend private schools in any considerable number, the fact is reflected in a lower ratio.

I. Graduated Taxation Table.

Table showing for the several towns and cities of the State the comparative amounts of money expended for the support of public schools per child, as determined (1) by the number of children between five and fifteen years of age in the town or city and (2) by the number of children in the average membership of the public schools.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.		TOWNS AND CITIES.	Amount expended for the Support of the Public Schools from the —		Number of Children —		Amount of local tax for school support for each child between five and fifteen years of age.	Amount yielded for Each Child in the Average Membership of the Public Schools by the —	
			Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1907-8.	**1908-9.**								
1	1	Lincoln,	$7,869 10	$8,007 62	156	107	$50 44	$73 54	$74 84
2	2	Weston,	19,551 65	19,551 65	311	294	62 87	66 50	66 50
4	3	Brookline,	209,459 82	209,459 82	3,619	3,749	57 88	55 87	55 87
5	4	Hull,	11,331 88	11,331 88	185	210	61 25	53 96	53 96
7	5	Milton,	71,505 96	71,505 96	1,327	1,397	53 89	51 19	51 19
11	6	Wellesley,	45,498 43	45,498 43	821	897	55 42	50 72	50 72
18	7	Lancaster,	14,953 16	14,953 16	367	295	40 74	50 69	50 69
8	8	Manchester,	22,472 81	22,472 81	409	463	54 95	48 54	48 54
6	9	Nahant,	8,174 40	8,174 40	173	175	47 25	46 71	46 71
15	10	Newton,	288,035 67	288,035 67	6,669	6,225	43 19	46 27	46 27
14	11	Cohasset,	19,094 30	19,134 70	457	421	41 78	45 34	45 45
23	12	Bourne,	12,786 51	13,367 01	312	286	40 98	44 71	46 78
13	13	Stockbridge,	15,138 90	15,435 12	388	344	39 02	44 01	44 87
30	14	Westwood,	7,635 93	9,093 92	230	188	33 20	40 62	48 48
20	15	Scituate,	18,369 91	18,406 00	433	453	42 42	40 55	40 63
10	16	Petersham,	5,942 43	8,295 42	136	150	43 69	39 62	55 30
31	17	Barnstable,	28,474 91	31,363 37	661	721	43 08	39 49	43 50
22	18	Lexington,	32,309 85	32,458 85	830	830	38 93	38 93	39 11
24	19	Wenham,	5,830 61	6,713 60	178	150	32 76	38 87	44 76
17	20	Harvard,	5,332 62	7,066 18	163	138	32 72	38 64	51 20

Table showing the comparative amounts of money expended for the support, etc. — Continued.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.		TOWNS AND CITIES.	AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
1907–8.	1908–9.		Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
21	21	Springfield,	$473,837 09	$485,004 15	12,989	12,367	$36 48	$38 31	$39 22
12	22	Falmouth,	21,877 21	22,363 46	505	584	43 32	37 46	38 29
27	23	Sudbury,	6,805 82	8,758 06	169	182	40 27	37 39	48 12
28	24	Boston,	3,566,333 27	3,626,597 86	111,450	95,926	31 99	37 18	37 81
9	25	Dover,	3,917 13	5,606 76	138	106	28 39	36 95	52 89
33	26	Bedford,	5,130 62	7,322 50	172	139	29 83	36 91	52 68
32	27	Beverly,	109,666 92	109,666 92	2,979	2,997	36 81	36 59	36 59
34	28	Holyoke,	224,714 31	224,714 31	10,940	6,230	25 41	36 07	36 07
46	29	Hardwick,	13,078 35	14,550 16	581	368	22 51	35 43	39 54
45	30	Groton,	11,549 68	11,753 08	312	326	37 02	35 43	36 05
29	31	West Boylston,	7,249 01	10,084 63	196	205	36 98	35 36	49 19
51	32	Belmont,	27,129 76	27,419 76	855	770	31 73	35 23	35 61
41	33	Wayland,	12,538 41	14,430 01	340	359	36 88	34 93	40 20
19	34	Longmeadow,	4,955 65	7,254 29	189	142	26 22	34 90	51 10
26	35	Hopedale,	13,869 78	13,912 78	355	398	39 07	34 85	34 96
99	36	Needham,	30,543 13	31,356 63	820	884	37 25	34 55	35 47
71	37	Lawrence,	276,246 56	276,246 56	13,108	8,122	21 07	34 01	34 01
55	38	Waltham,	106,997 87	107,113 37	3,734	3,148	28 66	33 99	34 03
38	39	Princeton,	4,658 66	6,122 07	156	139	29 86	33 52	44 04
62	40	Worcester,	685,984 50	690,992 49	22,589	20,511	30 37	33 44	33 69
61	41	Walpole,	27,440 53	27,595 22	835	821	32 86	33 42	33 61
49	42	Dedham,	154,538 82	56,998 94	1,457	1,633	37 43	33 31	34 90
36	43	Swampscott,	32,081 72	32,081 72	785	964	40 87	33 28	33 28
76	44	Wilbraham,	7,316 90	8,875 84	250	221	29 27	33 10	40 16
153	45	Acton,	10,492 07	13,059 69	339	317	30 95	33 10	41 20
67	46	Fitchburg,	131,013 47	131,722 47	6,579	3,966	19 91	33 03	33 21
52	47	Canton,	19,242 49	19,489 99	873	583	22 04	33 00	33 43
53	48	Plainville,	6,299 06	8,895 96	211	191	29 85	32 95	46 58

74	49	Watertown, ...	54,516 89	54,516 89	2,005	1,661	27 19	32 82	32 82
50	50	Lowell, ...	372,761 24	378,103 74	14,594	11,361	25 54	32 81	33 28
66	51	Webster, ...	25,178 95	25,654 32	2,105	771	11 96	32 66	32 27
127	52	Marshfield, ...	8,316 63	9,902 29	232	255	35 85	32 61	38 83
54	53	Arlington, ...	60,981 56	62,088 88	1,854	1,883	32 89	32 39	32 97
63	54	Boylston, ...	3,583 55	6,261 45	142	111	25 24	32 28	56 41
343	55	Chilmark, ...	869 61	1,604 11	30	27	28 99	32 21	59 41
42	56	Hyde Park, ...	57,949 38	57,949 38	2,774	1,809	20 89	32 03	32 03
96	57	Brewster, ...	2,775 46	3,986 57	111	87	25 00	31 90	45 82
25	58	Marion, ...	4,522 02	5,689 88	151	143	29 95	31 62	39 79
47	59	Cambridge, ...	476,227 87	476,227 87	16,594	15,214	28 70	31 30	31 30
3	60	Mount Washington, .	375 00	1,246 75	16	12	23 44	31 25	103 90
79	61	New Bedford, . .	300,302 41	304,111 32	14,039	9,611	21 39	31 25	31 64
40	62	Wrentham, ...	7,120 78	8,879 27	209	228	34 07	31 23	38 94
75	63	Attleborough, . .	68,804 59	69,538 77	2,584	2,207	26 63	31 18	31 51
37	64	Tewksbury, ...	5,664 42	8,180 19	245	182	23 12	31 12	44 95
57	65	Winchester, ...	51,930 71	52,391 65	1,593	1,669	32 60	31 12	31 39
70	66	Malden, ...	217,679 08	217,679 08	8,121	7,001	26 80	31 09	31 09
44	67	Hingham, ...	26,003 78	28,244 58	738	837	35 24	31 07	33 75
82	68	Montague, ...	34,064 42	35,017 01	1,251	1,098	27 23	31 02	31 89
87	69	Winthrop, ...	47,405 36	47,405 36	1,474	1,532	32 16	30 94	30 94
65	70	Hamilton, ...	9,769 57	10,220 57	318	316	30 72	30 92	32 34
78	71	Leominster, ...	67,163 90	68,669 33	2,740	2,186	24 51	30 72	31 41
73	72	Medford, ...	127,184 77	127,385 77	3,944	4,156	32 25	30 60	30 65
59	73	Ware, ...	31,564 59	31,812 59	1,530	1,032	20 63	30 59	30 83
77	74	Lenox, ...	18,979 33	19,486 33	603	622	31 47	30 51	31 33
56	75	Melrose, ...	91,887 55	91,887 55	2,753	3,020	33 38	30 43	30 43
112	76	Dartmouth, ...	19,495 34	20,247 47	780	641	25 00	30 41	31 59
43	77	Ludlow, ...	22,896 62	24,464 48	760	753	30 13	30 41	32 49
60	78	Dracut, ...	15,149 33	17,093 45	636	500	23 82	30 30	34 19
90	79	Somerville, ...	365,151 98	365,151 98	12,217	12,058	29 89	30 28	30 28
68	80	North Andover, . .	24,643 26	24,908 11	830	815	29 69	30 24	30 56
69	81	Concord, ...	31,152 27	38,205 21	896	1,031	34 77	30 22	37 06
95	82	Brockton, ...	254,763 57	255,010 01	8,479	8,460	30 05	30 11	30 14
80	83	Southborough, . .	9,511 42	11,417 91	304	317	31 29	30 00	36 02
93	84	Lynn, ...	304,414 17	306,032 35	12,558	10,164	24 24	29 95	30 11
94	85	Wareham, ...	18,051 54	18,976 09	619	603	29 16	29 94	31 47
72	86	North Adams, . . .	89,872 96	89,872 96	4,479	3,004	20 07	29 92	29 92
163	87	Duxbury, ...	7,536 91	8,829 20	267	252	28 23	29 91	35 04

Table showing the comparative amounts of money expended for the support, etc. — Continued.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.		TOWNS AND CITIES.	Amount expended for the Support of the Public Schools from the —		Number of Children —		Amount of local tax for school support for each child between five and fifteen years of age.	Amount yielded for Each Child in the Average Membership of the Public Schools by the —	
1907–8.	1908–9.		Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
107	88	Norwood,	$45,515 57	$45,669 07	1,454	1,523	$31 30	$29 89	$29 99
116	89	Barre,	11,508 61	13,461 60	437	387	26 34	29 74	34 78
48	90	Haverhill,	167,625 45	168,988 64	6,754	5,643	24 82	29 71	29 95
58	91	Littleton,	6,462 13	8,609 54	205	218	31 52	29 64	39 49
81	92	Salem,	142,381 53	142,381 53	7,025	4,806	20 27	29 63	29 63
84	93	Reading,	32,999 61	35,248 93	1,005	1,119	32 84	29 49	31 50
141	94	Norwell,	7,024 83	9,397 99	219	239	32 08	29 39	38 90
104	95	Amesbury,	27,180 82	27,180 82	1,560	925	17 42	29 38	29 38
102	96	Northampton,	79,286 91	81,590 36	3,346	2,739	23 70	28 95	29 79
145	97	Great Barrington,	30,018 73	31,130 73	954	1,050	31 47	28 93	29 65
172	98	Blandford,	2,334 50	4,225 31	124	81	18 83	28 82	52 16
118	99	North Attleborough,	36,826 94	36,873 06	1,256	1,280	29 32	28 77	28 81
83	100	Andover,	33,878 10	37,243 04	1,094	1,187	30 97	28 54	31 38
171	101	Dalton,	17,846 00	18,897 50	644	626	27 71	28 51	30 19
88	102	Norton,	8,784 39	10,567 68	336	309	26 14	28 43	34 20
140	103	Bridgewater,	22,846 71	30,941 84	743	805	30 75	28 38	38 44
123	104	Peabody,	55,148 85	55,286 85	2,388	1,950	23 09	28 28	28 35
117	105	Chelmsford,	21,961 42	23,111 47	835	777	26 30	28 26	29 74
105	106	Westford,	11,236 44	12,969 84	435	399	25 83	28 16	32 51
98	107	Westfield,	61,773 28	69,453 57	2,539	2,201	24 33	28 07	31 56
309	108	Tyringham,	1,288 05	2,188 05	69	46	18 67	28 00	47 57
136	109	Abington,	25,938 91	26,814 58	730	927	35 53	27 98	28 93
115	110	Pittsfield,	119,360 22	119,360 22	4,707	4,272	25 36	27 94	27 94
108	111	Spencer,	23,621 86	24,008 04	1,124	846	21 02	27 92	28 38
131	112	Dudley,	9,812 77	11,528 77	831	353	11 81	27 80	32 66
113	113	Revere,	86,727 77	86,858 15	3,149	3,120	27 54	27 80	27 84
103	114	Everett,	175,152 89	175,405 89	6,250	6,304	28 02	27 78	27 82
109	115	Chicopee,	72,377 58	72,500 08	3,983	2,607	18 17	27 76	27 81

129	116	Taunton, . . .	130,906 72	134,400 05	5,503	4,722	23 79	27 72	28 46
106	117	Williamstown, . .	21,510 53	21,742 44	786	776	27 37	27 72	28 02
119	118	Boxford, . . .	2,605 31	3,789 06	97	94	26 86	27 72	40 31
130	119	Fall River, . . .	378,410 41	387,207 06	22,122	13,678	17 11	27 67	28 31
86	120	Sharon, . . .	9,330 74	11,473 93	413	338	22 59	27 61	33 65
232	121	Ashland, . . .	8,736 70	9,653 03	283	317	30 87	27 56	30 45
89	122	Norfolk, . . .	3,961 03	5,729 85	176	144	22 51	27 51	39 79
101	123	Clinton, . . .	53,342 33	53,342 33	2,418	1,941	22 06	27 48	27 48
126	124	Natick, . . .	47,090 81	47,683 38	1,650	1,715	28 54	27 46	27 80
144	125	Marblehead, . . .	32,762 31	32,762 71	1,100	1,195	29 78	27 42	27 42
91	126	Tyngsborough, . .	3,300 97	5,403 75	144	121	22 92	27 28	44 66
100	127	Gardner, . . .	45,454 92	45,704 05	2,270	1,667	20 02	27 27	27 42
241	128	Granby, . . .	2,940 60	5,371 68	137	108	21 46	27 23	49 74
262	129	Pembroke, . . .	5,010 64	5,968 31	194	185	25 83	27 08	32 26
139	130	Southbridge, . . .	27,379 38	27,919 38	2,109	1,016	12 98	26 95	27 50
111	131	Adams, . . .	43,661 18	43,661 18	2,354	1,623	18 55	26 90	26 90
264	132	Dana, ...	2,820 38	5,227 74	110	105	25 64	26 86	49 79
186	133	Shrewsbury, . . .	8,353 33	10,318 74	241	311	34 66	26 86	33 18
121	134	Stoneham, . . .	30,312 47	30,477 84	1,099	1,133	27 58	26 75	26 90
124	135	Danvers, . . .	38,985 26	40,776 76	1,496	1,458	26 06	26 74	27 97
92	136	Mattapoisett, . .	4,990 86	6,279 18	214	187	23 32	26 69	33 58
122	137	Framingham, . .	56,840 89	57,445 93	1,884	2,161	30 17	26 30	26 58
143	138	Athol, ...	30,610 39	31,622 34	1,233	1,164	24 83	26 30	27 17
135	139	Ashby, ...	3,424 32	6,135 13	139	131	24 64	26 14	46 83
174	140	Halifax, . . .	1,822 02	3,146 68	86	70	21 19	26 03	44 95
194	141	Oxford, . . .	14,128 54	16,024 61	588	548	24 01	25 78	29 24
183	142	Newbury, . . .	4,846 91	6,667 82	210	188	23 08	25 78	35 47
142	143	Holland, . . .	360 50	972 35	22	14	16 39	25 75	69 45
110	144	Townsend, . . .	7,232 31	9,093 99	279	281	25 92	25 74	32 36
97	145	Westborough, . .	17,737 75	17,879 40	665	691	26 67	25 67	25 87
114	146	Wakefield, . . .	54,922 76	57,433 02	1,922	2,140	28 57	25 66	26 84
120	147	West Brookfield, . .	4,017 04	5,966 19	197	157	20 39	25 59	38 00
159	148	Kingston, . . .	9,873 58	11,821 27	397	387	24 87	25 51	30 55
160	149	Mansfield, . . .	20,549 61	21,097 61	838	806	24 52	25 50	26 18
157	150	Brookfield, . . .	9,011 55	10,948 96	354	354	25 46	25 46	30 93
155	151	Braintree, . . .	35,882 97	36,459 47	1,414	1,410	25 38	25 45	25 86
128	152	Topsfield, . . .	3,123 38	4,117 74	116	123	26 93	25 39	33 48
148	153	Warren, . . .	14,555 74	17,499 14	791	575	18 40	25 31	30 43
146	154	Weymouth, . . .	54,449 72	54,553 72	2,031	2,155	26 81	25 27	25 31

Table showing the comparative amounts of money expended for the support, etc. — Continued.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.		TOWNS AND CITIES.	AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
			Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1907–8.	**1908–9.**								
35	155	Burlington,	$1,838 69	$3,023 69	80	73	$22 98	$25 19	$41 42
173	156	Middleborough,	32,058 63	32,058 63	1,280	1,275	25 05	25 14	25 14
152	157	Maynard,	20,238 62	20,238 62	749	809	27 02	25 02	25 02
150	158	Orange,	26,284 45	26,284 45	921	1,052	28 54	24 99	24 99
147	159	Grafton,	21,342 01	22,279 51	902	857	23 66	24 90	26 00
177	160	Wellfleet,	3,284 75	4,320 63	142	132	23 13	24 88	32 73
64	161	Franklin,	24,244 13	25,030 94	979	975	24 76	24 87	25 67
149	162	Plymouth,	48,951 13	49,113 38	2,024	1,970	24 19	24 85	24 93
226	163	Boxborough,	1,234 88	2,783 69	66	50	18 71	24 70	55 67
271	164	Whately,	2,220 01	3,932 92	113	90	19 65	24 67	43 70
161	165	Richmond,	1,625 50	3,302 43	102	66	15 94	24 63	50 04
134	166	Chelsea,	154,325 67	155,550 78	4,597	6,318	33 57	24 43	24 62
219	167	Dighton,	7,930 09	9,492 08	371	325	21 37	24 40	29 21
218	168	Sherborn,	4,557 36	5,588 10	213	187	21 39	24 37	29 88
287	169	Holden,	9,585 82	11,067 63	422	394	22 72	24 33	28 09
184	170	South Hadley,	21,798 11	22,934 05	915	901	23 82	24 19	25 45
280	171	Middleton,	3,458 39	5,908 38	183	143	18 90	24 18	41 32
176	172	Hudson,	25,781 08	26,237 44	1,102	1,067	23 39	24 16	24 59
132	173	Palmer,	27,773 40	28,450 00	1,578	1,151	17 60	24 13	24 72
244	174	Medfield,	6,287 33	8,270 22	240	262	26 20	24 00	31 57
137	175	Carver,	4,452 46	6,650 96	252	186	17 67	23 94	35 76
125	176	Greenfield,	38,863 85	39,688 76	1,580	1,625	24 60	23 92	24 42
199	177	Washington,	1,075 91	2,443 09	55	45	19 56	23 91	54 29
221	178	West Stockbridge,	3,862 69	5,886 19	186	162	20 77	23 84	36 33
202	179	Mendon,	3,695 38	5,870 45	140	155	26 40	23 84	37 87
178	180	Rockland,	26,979 37	27,124 87	1,019	1,135	26 48	23 77	23 90
217	181	Newburyport,	45,635 78	48,210 64	2,375	1,921	19 22	23 76	25 10
151	182	Foxborough,	13,359 58	15,207 57	538	564	24 83	23 68	26 96

165	183	Easton, . . .	23,695 81	31,283 44	939	1,001	25 24	23 67	31 25
162	184	Marlborough, . .	57,048 13	57,154 11	2,962	2,413	19 40	23 64	23 68
207	185	Leicester, . . .	14,859 00	17,891 19	774	630	19 20	23 62	28 40
154	186	Royalston, . . .	3,346 81	5,717 16	141	142	23 74	23 57	40 26
182	187	Quincy, . . .	135,603 51	135,635 65	7,362	5,769	18 42	23 51	23 51
208	188	Warwick, . . .	2,325 99	4,318 69	132	99	17 62	23 49	43 62
164	189	Stoughton, . . .	20,131 82	20,805 82	932	861	21 60	23 38	24 16
156	190	Sunderland, . . .	3,200 77	5,556 75	147	137	21 77	23 36	40 56
166	191	Whitman, . . .	29,701 76	30,462 77	1,198	1,272	24 79	23 35	23 95
212	192	New Marlborough, . .	4,031 93	6,025 73	192	173	21 00	23 31	34 83
220	193	Gloucester, . . .	108,382 12	108,382 12	4,634	4,658	23 39	23 27	23 27
190	194	Georgetown, . . .	6,578 21	8,385 40	316	283	20 82	23 24	29 63
229	195	Northfield, . . .	5,300 21	7,348 59	260	229	20 39	23 15	32 09
193	196	Westport, . . .	9,622 42	11,038 27	529	417	18 19	23 07	26 47
179	197	Merrimac, . . .	8,257 76	9,917 65	315	358	26 22	23 07	27 70
158	198	North Reading, . .	3,043 84	5,995 08	156	132	19 51	23 06	45 42
85	199	Lynnfield, . . .	2,305 23	4,483 04	119	100	19 37	23 05	44 83
133	200	Bellingham, . . .	6,085 79	8,637 95	308	264	19 75	23 05	32 72
223	201	Acushnet, . . .	4,070 89	6,816 03	236	177	17 25	23 00	38 51
169	202	Sturbridge, . . .	7,244 76	8,930 17	373	315	19 42	23 00	28 35
39	203	Yarmouth, . . .	4,365 09	7,975 26	172	190	25 38	22 97	41 98
185	204	Lee, ...	13,835 22	16,045 20	734	603	18 85	22 94	26 61
175	205	Oak Bluffs, . . .	4,381 67	4,694 17	224	191	19 56	22 94	24 58
170	206	Saugus, . . .	34,031 37	34,688 37	1,510	1,484	22 54	22 93	23 37
195	207	Medway, . . .	9,890 58	11,545 99	439	438	22 53	22 58	26 36
200	208	Northborough, . .	7,392 28	9,492 16	332	328	22 27	22 54	28 94
168	209	Uxbridge, . . .	17,628 04	19,671 81	809	784	21 79	22 48	25 00
187	210	Agawam, . . .	9,782 49	11,752 52	552	437	17 72	22 39	26 89
138	211	Deerfield, . . .	6,758 96	8,460 50	378	302	17 88	22 38	28 01
312	212	Mashpee, . . .	843 98	1,543 98	51	38	16 55	22 21	40 63
225	213	Ipswich, . . .	16,928 06	18,416 10	899	763	18 83	22 19	24 14
273	214	Erving, . . .	4,098 47	5,937 34	173	186	23 69	22 03	31 92
228	215	Sheffield, . . .	5,133 52	7,396 76	256	233	20 05	22 03	31 75
211	216	Billerica, . . .	11,154 51	13,022 82	533	508	20 93	21 96	25 64
201	217	Nantucket, . . .	9,722 35	9,744 60	413	443	23 54	21 95	22 00
216	218	Wilmington, . . .	8,219 34	10,424 33	364	375	22 58	21 92	27 80
246	219	Chesterfield, . . .	1,613 47	3,453 85	90	74	17 93	21 80	46 67
243	220	Monson, . . .	14,515 49	17,003 90	651	666	22 30	21 80	25 53
196	221	Northbridge, . . .	32,066 73	32,163 73	1,580	1,479	20 30	21 75	21 75

Table showing the comparative amounts of money expended for the support, etc. — Continued.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.		TOWNS AND CITIES.	AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
1907–8.	**1908–9.**		Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
192	222	Milford,	$38,909 05	$38,909 05	2,176	1,790	$17 88	$21 73	$21 73
259	223	West Newbury,	5,541 07	7,881 06	245	256	22 62	21 64	30 79
230	224	Hopkinton,	9,963 13	12,069 58	436	461	22 85	21 61	26 18
231	225	Sandwich,	4,967 89	7,260 38	271	230	18 33	21 60	31 57
189	226	Rockport,	16,819 87	16,819 87	827	780	20 34	21 56	21 56
224	227	Chatham,	5,321 96	6,968 62	244	247	21 81	21 55	28 21
209	228	Pepperell,	13,474 17	15,132 17	590	626	22 84	21 52	24 17
247	229	Ayer,	9,902 25	11,417 88	385	462	25 72	21 43	24 71
191	230	Lanesborough,	2,568 23	4,512 45	146	120	17 59	21 40	37 60
245	231	Shelburne,	5,325 25	7,645 75	232	249	22 95	21 39	30 71
210	232	Woburn,	60,828 16	61,974 41	3,488	2,846	17 44	21 37	21 78
252	233	Easthampton,	22,743 24	23,966 80	1,250	1,067	18 19	21 32	22 46
227	234	Stow,	4,307 60	6,924 35	198	203	21 76	21 22	34 11
215	235	Lunenburg,	4,413 07	6,137 56	225	208	19 61	21 22	29 51
239	236	Winchendon,	21,013 96	29,297 25	1,162	997	18 08	21 08	29 39
250	237	Upton,	6,680 84	8,642 64	307	317	21 76	21 08	27 26
214	238	Randolph,	14,180 39	15,788 19	721	674	19 67	21 04	23 42
206	239	Dennis,	6,383 58	7,924 07	238	304	26 82	21 00	26 07
260	240	Millbury,	16,334 05	17,947 17	918	778	17 79	20 99	23 07
234	241	Swansea,	5,750 78	7,918 10	290	274	19 83	20 99	28 90
292	242	New Salem,	2,535 84	5,312 65	107	121	23 70	20 96	43 91
240	243	Russell,	3,541 29	5,067 54	169	169	20 95	20 95	29 99
238	244	Amherst,	17,663 81	20,217 64	757	843	23 33	20 95	23 98
313	245	Dunstable,	1,528 06	3,173 36	82	73	18 63	20 93	43 47
180	246	Hanover,	8,396 36	9,849 99	378	273	22 21	20 76	36 08
248	247	Essex,	5,756 10	7,711 09	288	278	19 99	20 71	27 74
188	248	Methuen,	33,269 99	36,914 93	1,989	1,609	16 73	20 68	22 94
213	249	North Brookfield,	8,237 32	10,377 73	488	402	16 88	20 49	25 82

197	250	Hatfield,	4,728 78	6,369 96	260	231	18 19	20 47	27 58
253	251	Ashburnham,	7,096 56	8,510 73	369	347	19 23	20 45	24 53
277	252	Carlisle,	1,807 72	3,235 15	97	89	18 64	20 31	36 35
261	253	East Bridgewater,	11,298 99	13,059 07	551	558	20 51	20 24	23 40
272	254	Harwich,	6,461 89	8,204 93	371	320	17 42	20 19	25 64
283	255	Rutland,	4,192 56	6,260 85	212	208	19 78	20 16	30 10
256	256	Sterling,	4,122 56	6,757 70	213	205	19 35	20 11	32 96
235	257	Holliston,	9,759 30	11,498 79	506	487	19 29	20 04	23 61
205	258	Enfield,	3,101 68	5,283 73	156	156	19 88	19 88	33 87
249	259	Shirley,	5,584 85	7,760 39	319	281	17 51	19 87	27 62
204	260	Ashfield,	3,405 95	6,527 63	150	172	22 71	19 80	37 95
222	261	Bolton,	2,118 14	4,919 14	122	107	17 36	19 80	45 97
285	262	Lakeville,	2,670 71	4,698 52	159	135	16 80	19 78	34 80
275	263	Millis,	4,837 70	6,869 24	258	245	18 75	19 75	28 04
254	264	West Springfield,	34,102 76	36,706 52	1,655	1,734	20 61	19 67	21 17
167	265	Hanson,	5,341 83	7,085 44	299	273	17 87	19 57	25 95
258	266	Conway,	3,982 10	6,138 78	201	204	19 81	19 52	30 09
203	267	Douglas,	5,868 72	7,828 01	285	302	20 59	19 43	25 92
269	268	Sandisfield,	1,648 47	2,995 66	123	85	13 40	19 39	35 24
282	269	Greenwich,	940 50	2,408 65	92	49	10 22	19 19	49 16
290	270	Berlin,	2,829 02	5,560 68	184	148	15 38	19 12	37 57
251	271	Cheshire,	4,047 50	6,278 41	258	212	15 69	19 09	29 61
289	272	Rehoboth,	5,333 00	7,376 80	357	282	14 94	18 91	26 16
279	273	West Bridgewater,	6,892 43	8,539 40	405	365	17 02	18 88	23 40
284	274	Becket,	2,749 18	4,187 63	174	146	15 80	18 83	28 68
266	275	Orleans,	3,606 84	6,290 61	174	192	20 73	18 79	32 76
236	276	Fairhaven,	16,692 95	41,381 53	941	891	17 74	18 74	46 44
307	277	Huntington,	5,596 39	8,320 15	294	299	22 44	18 72	27 83
255	278	Groveland,	8,077 77	9,835 35	424	432	19 05	18 70	22 77
281	279	Shutesbury,	778 71	1,720 77	43	42	18 11	18 54	40 97
302	280	Auburn,	6,495 02	8,377 42	499	353	13 02	18 40	23 73
327	281	Chester,	4,934 94	8,144 25	282	271	17 50	18 21	30 05
278	282	Phillipston,	1,200 83	2,658 09	78	66	15 40	18 19	40 27
288	283	Sutton,	7,304 31	9,356 82	642	402	11 38	18 17	23 28
326	284	Seekonk,	5,261 35	6,949 47	349	290	15 08	18 14	23 96
274	285	Holbrook,	9,083 28	10,566 44	503	504	18 06	18 02	20 97
308	286	Eastham,	1,153 07	3,584 23	69	64	16 71	18 02	56 00
306	287	Charlton,	6,147 42	7,760 09	370	343	16 61	17 92	22 62
181	288	Charlemont,	3,339 15	6,545 29	174	188	19 19	17 76	34 82

Table showing the comparative amounts of money expended for the support, etc. — Concluded.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.		TOWNS AND CITIES.	AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
			Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1907–8.	**1908–9.**								
268	289	Edgartown,	$2,944 30	$4,473 51	156	166	$18 87	$17 74	$26 95
315	290	Colrain,	5,250 60	8,341 39	343	299	15 31	17 56	27 90
257	291	Hubbardston,	3,238 51	4,870 00	209	185	15 50	17 51	26 32
276	292	Salisbury,	3,816 76	5,082 37	286	219	13 35	17 43	23 21
301	293	Hadley,	5,268 63	9,682 71	319	303	16 52	17 39	31 96
265	294	Hinsdale,	3,725 20	6,131 98	246	215	15 14	17 33	28 52
294	295	Templeton,	9,865 93	11,883 08	702	591	14 05	16 69	20 11
291	296	Freetown,	3,830 62	5,764 15	269	231	14 24	16 58	24 95
305	297	Avon,	6,710 08	8,809 34	414	405	16 21	16 56	21 75
345	298	Rowe,	1,203 42	2,613 62	105	73	11 46	16 49	35 80
333	299	Worthington,	1,514 84	3,414 38	110	92	13 77	16 47	37 11
242	300	Rochester,	2,503 97	5,511 23	161	154	15 55	16 26	35 79
286	301	Buckland,	3,717 46	7,162 77	256	230	14 52	16 16	31 14
314	302	Blackstone,	18,136 61	19,170 02	1,138	1,126	15 94	16 11	17 02
295	303	Westminster,	4,219 00	5,804 95	271	263	15 61	16 04	22 07
337	304	Heath,	881 38	2,284 63	53	55	16 63	16 03	41 54
303	305	Granville,	2,312 69	4,168 50	171	145	13 52	15 95	28 75
323	306	Egremont,	1,380 55	2,805 31	104	87	13 27	15 87	32 24
348	307	Middlefield,	1,382 64	3,204 19	84	90	16 46	15 36	35 60
325	308	Wales,	1,213 19	2,711 65	73	79	16 62	15 36	34 32
300	309	East Longmeadow,	4,736 65	8,159 28	360	310	13 16	15 28	26 32
319	310	Paxton,	1,200 00	2,961 70	89	79	13 48	15 19	37 49
263	311	Bernardston,	1,809 47	4,821 20	119	120	15 21	15 08	40 18
311	312	Wendell,	1,039 72	2,740 45	88	69	11 82	15 07	39 72
297	313	Hampden,	1,655 02	3,599 11	146	110	11 34	15 05	32 72
346	314	Monroe,	853 01	2,092 12	61	57	13 98	14 97	36 70
324	315	Williamsburg,	5,803 87	8,909 38	411	390	14 12	14 88	22 84
304	316	Raynham,	3,491 88	6,201 47	246	235	14 19	14 86	26 39

310	317	Southampton,	2,033 00	4,024 03	160	137	12 71	14 84	29 37
296	318	Savoy,	1,066 22	2,866 24	94	73	11 34	14 61	39 26
237	319	New Braintree,	1,124 61	1,124 61	77	88	14 61	14 61	36 94
322	320	Belchertown,	5,474 75	8,367 06	398	379	13 76	14 45	22 08
233	321	Otis,	1,241 97	2,950 38	72	86	17 25	14 44	34 31
316	322	Windsor,	1,470 76	3,275 47	102	102	14 42	14 42	32 11
198	323	Montgomery,	503 97	2,135 03	36	35	14 00	14 40	61 00
318	324	Gill,	1,769 59	3,691 20	157	123	11 27	14 39	30 01
293	325	Tisbury,	3,008 56	4,987 82	201	210	14 97	14 33	23 75
338	326	Leyden,	757 58	2,029 99	72	53	10 52	14 29	38 30
349	327	Monterey,	1,031 33	2,541 32	80	73	12 89	14 13	34 81
329	328	Provincetown,	13,349 56	15,500 48	853	950	15 65	14 05	16 32
332	329	Peru,	678 00	2,258 41	55	49	12 33	13 82	46 09
330	330	Somerset,	6,535 65	8,061 31	519	476	12 59	13 73	16 94
16	331	Tolland,	268 51	1,436 77	29	20	9 26	13 43	71 84
299	332	Plympton,	844 26	2,244 43	90	63	9 38	13 40	35 63
347	333	Goshen,	713 10	2,008 88	70	54	10 19	13 21	37 21
340	334	Cummington,	1,564 36	4,322 39	134	121	11 67	12 93	35 72
320	335	Plainfield,	688 39	2,287 76	60	54	11 47	12 75	42 37
328	336	Rowley,	3,306 95	4,976 54	294	260	11 25	12 72	19 14
354	337	Pelham,	945 69	1,888 19	98	75	9 69	12 61	25 18
317	338	Hancock,	967 38	2,385 71	77	77	12 56	12 56	30 98
350	339	Clarksburg,	2,422 81	4,424 53	250	193	9 69	12 55	22 93
298	340	Southwick,	1,782 58	4,645 34	172	144	10 36	12 38	32 26
344	341	Hawley,	986 30	2,772 38	97	81	10 17	12 18	34 23
331	342	Westhampton,	1,182 95	2,782 85	106	100	11 16	11 83	27 83
334	343	Alford,	516 90	1,815 67	48	44	10 77	11 75	41 27
339	344	Berkley,	1,777 64	3,879 89	187	156	9 51	11 40	24 87
341	345	Leverett,	1,466 60	3,534 48	138	129	10 63	11 37	27 40
321	346	Prescott,	587 87	2,479 48	60	52	9 80	11 31	47 68
270	347	Brimfield,	1,665 85	3,511 34	156	148	10 68	11 26	23 73
342	348	Oakham,	934 29	2,629 49	110	91	8 49	10 27	28 90
335	349	Truro,	1,429 10	3,356 98	155	142	9 22	10 06	23 64
267	350	West Tisbury,	668 00	2,743 51	63	69	10 60	9 68	39 76
336	351	Florida,	740 21	2,145 45	99	85	7 48	8 71	25 24
351	352	New Ashford,	100 30	1,090 86	18	14	5 57	7 16	77 92
352	353	Gosnold,	75 00	75 00	16	13	4 69	5 77	47 89
353	354	Gay Head,	107 84	1,372 15	38	32	2 84	3 37	42 56

GRADUATED TAXATION TABLE.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.	COUNTIES.	AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
		Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1908–1909.								
1	Suffolk,	$3,854,792 07	$3,916,412 15	120,670	106,896	$31 94	$36 06	$36 64
2	Hampden,	979,355 26	1,034,956 13	37,826	30,035	25 89	32 61	34 46
3	Norfolk,	959,799 98	992,518 37	31,953	29,438	30 04	32 60	33 72
4	Middlesex,	3,108,643 58	3,183,148 22	107,795	100,391	28 84	30 97	31 71
5	Essex,	1,604,003 77	1,643,324 92	67,882	55,279	23 63	29 02	29 73
6	Worcester,	1,558,717 60	1,663,702 06	66,111	54,175	23 58	28 77	30 71
7	Plymouth,	606,495 69	647,158 47	21,503	21,768	28 21	27 86	29 73
8	Bristol,	1,058,073 49	1,130,205 56	52,691	38,009	20 08	27 84	29 74
9	Berkshire,	413,969 68	456,786 16	18,471	15,318	22 41	27 03	29 82
10	Barnstable,	117,081 80	144,010 58	4,329	4,487	27 05	26 09	32 10
11	Hampshire,	219,138 17	265,100 76	10,837	9,346	20 22	23 45	28 37
12	Franklin,	162,219 26	212,520 11	7,351	7,083	22 07	22 90	30 00
13	Nantucket,	9,722 35	9,744 60	413	443	23 54	21 95	22 00
14	Dukes,	12,054 98	20,497 88	728	708	16 56	17 03	28 95

AGGREGATE FOR THE STATE.

State,	$14,664,067 68	$15,320,085 97	548,560	473,376	$26 73	$30 98	$32 36

II. Graduated Valuation Table.

A graduated table in which all the towns in the State are numerically arranged according to the proportion of their taxable property appropriated for the support of public schools for the year 1908–1909.

For 1907–1908, by the State valuation of 1907.	For 1908–1909, by the State valuation of 1908.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.	For 1907–1908, by the State valuation of 1907.	For 1908–1909, by the State valuation of 1908.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.
1	1	West Boylston,	$9 64	22	48	Groveland,	$6 93
8	2	W. Stockbridge,	9 63	12	49	Petersham,	6 93
87	3	Clarksburg,	9 30	42	50	Lee,	6 91
3	4	Abington,	9 27	135	51	Williamsburg,	6 90
5	5	Huntington,	9 08	77	52	Ashby,	6 89
2	6	Plainville,	8 40	40	53	Sturbridge,	6 88
11	7	Monson,	8 17	37	54	Ware,	6 87
32	8	Colrain,	8 10	46	55	Mansfield,	6 86
44	9	Norwell,	8 10	45	56	Palmer,	6 82
35	10	Blackstone,	8 08	64	57	Merrimac,	6 81
13	11	South Hadley,	8 06	48	58	Westfield,	6 79
6	12	Montague,	8 00	95	59	Rehoboth,	6 76
14	13	Grafton,	7 98	69	60	Wilbraham,	6 75
9	14	Norton,	7 79	33	61	Royalston,	6 70
311	15	Bourne,	7 70	86	62	Clinton,	6 63
16	16	Warren,	7 67	98	63	Danvers,	6 63
55	17	Dighton,	7 60	113	64	Saugus,	6 63
19	18	Hardwick,	7 59	82	65	Barre,	6 62
75	19	Oxford,	7 56	97	66	Brockton,	6 60
10	20	Northbridge,	7 55	38	67	Spencer,	6 59
7	21	Bellingham,	7 48	27	68	Dracut,	6 59
52	22	Norwood,	7 46	58	69	Franklin,	6 57
30	23	Boylston,	7 45	57	70	Williamstown,	6 56
59	24	Ashland,	7 44	105	71	Walpole,	6 54
26	25	Orange,	7 42	60	72	Sunderland,	6 51
66	26	Chelsea,	7 40	47	73	Natick,	6 50
89	27	Dana,	7 35	76	74	Malden,	6 48
17	28	Medway,	7 35	39	75	Provincetown,	6 46
21	29	Hudson,	7 35	119	76	Hopkinton,	6 44
266	30	Middlefield,	7 33	31	77	Hinsdale,	6 43
43	31	Ashburnham,	7 32	61	78	Westford,	6 41
126	32	Chester,	7 27	51	79	Holbrook,	6 40
23	33	Adams,	7 19	53	80	Wakefield,	6 38
36	34	Rockland,	7 14	154	81	Holden,	6 38
99	35	Avon,	7 11	92	82	Leominster,	6 38
72	36	Millbury,	7 10	124	83	Georgetown,	6 38
24	37	Brookfield,	7 08	145	84	Kingston,	6 34
50	38	Middleborough,	7 08	54	85	Reading,	6 30
28	39	Randolph,	7 07	216	86	Hawley,	6 30
29	40	Everett,	7 05	80	87	Tyngsborough,	6 29
18	41	Weymouth,	7 04	73	88	Leicester,	6 29
41	42	N. Attleborough,	7 03	67	89	Townsend,	6 28
20	43	E. Longmeadow,	7 02	226	90	Rowe,	6 27
56	44	Bridgewater,	7 02	49	91	Whitman,	6 26
127	45	New Salem,	6 97	88	92	Littleton,	6 26
34	46	Athol,	6 97	78	93	Uxbridge,	6 24
4	47	Charlemont,	6 96	79	94	Wilmington,	6 22

For 1907–1908, by the State valuation of 1907.	For 1908–1909, by the State valuation of 1908.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.
102	95	Warwick,	$6 22
90	96	Dudley,	6 22
63	97	Holliston,	6 19
110	98	Braintree,	6 19
71	99	Templeton,	6 19
65	100	Gardner,	6 18
85	101	Ludlow,	6 16
15	102	Upton,	6 06
62	103	Foxborough,	6 05
112	104	Millis,	6 04
115	105	Stoneham,	6 03
83	106	Pepperell,	6 00
117	107	Acushnet,	5 99
68	108	Wrentham,	5 98
108	109	Belchertown,	5 98
81	110	Chicopee,	5 96
190	111	Granby,	5 95
120	112	Sutton,	5 93
116	113	Northampton,	5 87
114	114	Orleans,	5 87
25	115	Savoy,	5 87
132	116	Taunton,	5 83
109	117	Hanover,	5 81
131	118	N. Marlborough,	5 81
219	119	Acton,	5 80
136	120	Somerville,	5 78
138	121	Revere,	5 76
107	122	Melrose,	5 75
91	123	E. Bridgewater,	5 75
118	124	Stoughton,	5 74
193	125	Dartmouth,	5 70
156	126	Mendon,	5 70
180	127	Auburn,	5 70
128	128	Ashfield,	5 68
123	129	Marlborough,	5 67
70	130	Wayland,	5 67
96	131	Conway,	5 67
202	132	Becket,	5 67
106	133	Haverhill,	5 67
155	134	W. Bridgewater,	5 64
149	135	Rutland,	5 64
178	136	Westport,	5 63
134	137	Framingham,	5 63
93	138	Methuen,	5 63
101	139	Fairhaven,	5 59
187	140	Shrewsbury,	5 59
148	141	Medford,	5 58
125	142	Westborough,	5 57
143	143	Northborough,	5 57
121	144	Milford,	5 56
122	145	Agawam,	5 52
139	146	Sheffield,	5 51
94	147	North Adams,	5 49
160	148	Arlington,	5 49
159	149	Andover,	5 47
146	150	Pittsfield,	5 47
144	151	Westminster,	5 47
164	152	Sudbury,	5 47
162	153	Peabody,	5 46
147	154	Harwich,	5 45
142	155	Woburn,	$5 44
316	156	Monroe,	5 42
212	157	Needham,	5 41
140	158	Cheshire,	5 40
133	159	Southborough,	5 39
84	160	Chelmsford,	5 37
130	161	Dennis,	5 37
158	162	Maynard,	5 35
231	163	Windsor,	5 34
141	164	Buckland,	5 33
151	165	North Andover,	5 33
184	166	Gt. Barrington,	5 32
299	167	Heath,	5 32
167	168	Worcester,	5 30
100	169	Winchendon,	5 30
129	170	Essex,	5 28
175	171	Brewster,	5 27
104	172	Rockport,	5 27
153	173	Westhampton,	5 26
168	174	Somerset,	5 25
137	175	W. Springfield,	5 23
200	176	West Newbury,	5 22
188	177	Chesterfield,	5 21
163	178	N. Brookfield,	5 18
300	179	Pembroke,	5 16
165	180	Southbridge,	5 13
283	181	Dunstable,	5 12
244	182	Dalton,	5 09
74	183	Otis,	5 09
185	184	Shirley,	5 09
169	185	Attleborough,	5 08
206	186	Peru,	5 07
194	187	Berlin,	5 06
308	188	Whately,	5 06
186	189	Lanesborough,	5 05
201	190	Barnstable,	5 00
293	191	Russell,	4 98
338	192	Tyringham,	4 98
157	193	Granville,	4 97
182	194	Sandwich,	4 97
282	195	Blandford,	4 97
253	196	Boxborough,	4 96
170	197	Tewksbury,	4 93
161	198	Norfolk,	4 91
179	199	Billerica,	4 90
191	200	Holyoke,	4 90
207	201	Lawrence,	4 89
173	202	Concord,	4 88
176	203	Lowell,	4 88
189	204	Ayer,	4 86
232	205	Sandisfield,	4 85
271	206	Leverett,	4 83
204	207	Stow,	4 82
199	208	Canton,	4 82
195	209	Amherst,	4 82
223	210	Gloucester,	4 82
197	211	Springfield,	4 81
218	212	Cummington,	4 79
225	213	Wareham,	4 79
150	214	Douglas,	4 78

For 1907–1908, by the State valuation of 1907.	For 1908–1909, by the State valuation of 1908.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.	For 1907–1908, by the State valuation of 1907.	For 1908–1909, by the State valuation of 1908.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.
198	215	Shelburne,	$4 77	270	275	Medfield,	$4 07
192	216	Quincy,	4 74	208	276	Longmeadow,	4 06
205	217	Fitchburg,	4 72	262	277	W. Brookfield,	4 03
214	218	Charlton,	4 70	329	278	Goshen,	4 02
276	219	Worthington,	4 70	353	279	Pelham,	4 00
171	220	Lexington,	4 69	258	280	Hadley,	4 00
152	221	Hubbardston,	4 69	224	281	Rochester,	3 99
217	222	Plymouth,	4 68	288	282	Newburyport,	3 98
245	223	Easton,	4 67	259	283	New Bedford,	3 98
312	224	Seekonk,	4 67	285	284	Bedford,	3 98
181	225	Chatham,	4 64	292	285	Lakeville,	3 95
172	226	Raynham,	4 63	248	286	Plainfield,	3 94
237	227	Amesbury,	4 63	281	287	Watertown,	3 93
233	228	Enfield,	4 59	256	288	Gill,	3 91
228	229	Richmond,	4 59	272	289	Ipswich,	3 88
210	230	Winchester,	4 51	295	290	Newbury,	3 88
196	231	Hingham,	4 51	275	291	Washington,	3 87
309	232	Middleton,	4 50	297	292	Webster,	3 82
213	233	Swansea,	4 49	274	293	Groton,	3 74
234	234	Salem,	4 49	302	294	Beverly,	3 71
103	235	Mt. Washington,	4 48	238	295	Truro,	3 69
215	236	Princeton,	4 47	277	296	Stockbridge,	3 65
246	237	Belmont,	4 46	286	297	Sharon,	3 62
287	238	Marshfield,	4 46	305	298	Holland,	3 59
229	239	Freetown,	4 46	290	299	Greenwich,	3 59
209	240	Cambridge,	4 46	264	300	Halifax,	3 55
241	241	Lynn,	4 45	280	301	Hatfield,	3 53
269	242	Harvard,	4 43	293	302	Lenox,	3 51
252	243	Scituate,	4 42	304	303	Paxton,	3 40
279	244	Erving,	4 42	326	304	Monterey,	3 38
247	245	Rowley,	4 42	323	305	Wellfleet,	3 35
203	246	North Reading,	4 41	327	306	Wellesley,	3 33
243	247	Winthrop,	4 41	307	307	Gay Head,	3 32
268	248	Leyden,	4 41	317	308	Eastham,	3 32
251	249	Marblehead,	4 39	315	309	Westwood,	3 30
249	250	Fall River,	4 39	242	310	Brimfield,	3 29
227	251	Phillipston,	4 33	337	311	Duxbury,	3 28
236	252	Dedham,	4 32	298	312	Hancock,	3 26
230	253	Easthampton,	4 32	319	313	Sherborn,	3 23
263	254	Hampden,	4 31	313	314	Swampscott,	3 22
257	255	Waltham,	4 30	322	315	Carver,	3 19
111	256	Bernardston,	4 28	296	316	Prescott,	3 17
235	257	Bolton,	4 28	306	317	Mattapoisett,	3 13
284	258	Northfield,	4 27	310	318	Shutesbury,	3 13
174	259	Greenfield,	4 26	321	319	Alford,	3 02
211	260	Salisbury,	4 25	352	320	Chilmark,	3 00
267	261	Berkley,	4 23	324	321	Milton,	3 00
222	262	Wales,	4 23	260	322	Montgomery,	3 00
166	263	Florida,	4 23	303	323	Burlington,	2 98
320	264	Mashpee,	4 21	273	324	Lynnfield,	2 96
221	265	Deerfield,	4 18	342	325	Egremont,	2 95
261	266	Lunenburg,	4 18	301	326	Edgartown,	2 92
254	267	Hanson,	4 18	333	327	Nantucket,	2 91
255	268	Sterling,	4 17	325	328	Weston,	2 88
278	269	Newton,	4 17	265	329	New Braintree,	2 84
183	270	Wendell,	4 17	343	330	Lincoln,	2 80
220	271	Hyde Park,	4 13	250	331	Dover,	2 79
240	272	Southampton,	4 12	328	332	Falmouth,	2 73
289	273	Carlisle,	4 10	334	333	Hamilton,	2 71
291	274	Lancaster,	4 09	339	334	Cohasset,	2 71

For 1907–1908, by the State valuation of 1907.	For 1908–1909, by the State valuation of 1908.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.	For 1907–1908, by the State valuation of 1907.	For 1908–1909, by the State valuation of 1908.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.
332	335	Boston, . .	$2 69	314	345	Yarmouth, .	$2 15
330	336	Oakham, . .	2 68	331	346	Tisbury, . .	2 15
335	337	Hopedale, . .	2 67	346	347	Brookline, . .	2 08
294	338	Southwick, .	2 66	351	348	New Ashford, .	1 98
341	339	Plympton, . .	2 52	348	349	Manchester, .	1 78
344	340	Wenham, . .	2 49	349	350	Marion, . .	1 58
318	341	Topsfield, . .	2 49	177	351	Tolland, . .	1 43
336	342	Oak Bluffs, .	2 43	350	352	Nahant, . .	1 38
345	343	Hull, . .	2 19	340	353	West Tisbury, .	1 25
347	344	Boxford, . .	2 17	354	354	Gosnold, . .	20

GRADUATED VALUATION TABLE.

Showing the different counties in the State, numerically arranged, according to the proportion of their taxable property appropriated for the support of public schools for the year 1908–1909.

For 1908–1909, by the State valuation of 1908.	COUNTIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.	Valuation of 1908.
1	Hampshire, ...	$5 63	$219,138 17	$38,934,015
2	Plymouth, ...	5 58	606,495 69	108,510,923
3	Franklin, ...	5 57	162,219 26	29,137,460
4	Worcester, ...	5 50	1,558,717 60	283,480,855
5	Berkshire, ...	5 42	413,969 68	76,433,129
6	Hampden, ...	5 17	979,355 26	189,608,614
7	Middlesex, ...	5 12	3,108,643 58	607,678,744
8	Bristol, ...	4 64	1,058,073 49	228,240,799
9	Essex, ...	4 51	1,604,003 77	355,385,738
10	Barnstable, ...	4 07	117,081 80	28,763,992
11	Norfolk, ...	3 67	959,799 98	261,376,248
12	Nantucket, ...	2 91	9,722 35	3,337,130
13	Suffolk, ...	2 80	3,854,792 07	1,374,347,953
14	Dukes, ...	2 21	12,054 98	5,454,506

AGGREGATE FOR THE STATE.

State, ...	$4 08	$14,664,067 68	$3,590,690,106

III. GRADUATED ATTENDANCE TABLE.

In which all the towns in the State are numerically arranged according to the ratio of AVERAGE ATTENDANCE *of children upon the public schools for the school year ending June, 1908, to the whole number of children in town between 5 and 15 years of age, September 1, 1908.*

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	Chelsea, . .	4,597	5,815	1.26	42	Shelburne, .	232	232	1.00
2	Dennis, . .	238	286	1.20	43	Middlefield, .	84	84	1.00
3	Abington, . .	730	863	1.18	44	Wrentham, .	209	208	.99
4	Swampscott, .	785	914	1.16	45	Easton, . .	939	933	.99
5	Shrewsbury, .	241	275	1.14	46	Hopkinton, .	436	433	.99
6	Ayer,. . .	385	433	1.12	47	Norwood, . .	1,454	1,443	.99
7	Falmouth, . .	505	563	1.11	48	Bridgewater, .	743	737	.99
8	Otis, . . .	72	79	1.10	49	Weymouth, .	2,031	2,013	.99
9	Concord, . .	896	973	1.09	50	Littleton, . .	205	203	.99
10	Hull, . .	185	199	1.08	51	Tisbury, . .	201	199	.99
11	Ashfield, . .	150	161	1.07	52	Marblehead, .	1,100	1,089	.99
12	Hingham, . .	738	787	1.07	53	Stow, . .	198	195	.98
13	Wakefield, .	1,922	2,037	1.06	54	Marshfield, .	232	228	.98
14	Manchester, .	409	430	1.05	55	Orleans, . .	174	171	.98
15	Rockland, . .	1,019	1,070	1.05	56	New Salem, .	107	105	.98
16	Ashland, . .	283	297	1.05	57	Heath, . .	53	52	.98
17	Orange, . .	921	966	1.05	58	Douglas, . .	285	279	.98
18	Hopedale, . .	355	372	1.05	59	Foxborough, .	538	526	.98
19	Provincetown, .	853	893	1.05	60	Natick, . .	1,650	1,612	.98
20	Merrimac, . .	315	329	1.04	61	Gloucester, .	4,634	4,526	.98
21	Yarmouth, .	172	178	1.03	62	Lenox, . .	603	588	.98
22	Dedham, . .	1,457	1,507	1.03	63	Milton, . .	1,327	1,290	.97
23	Melrose, . .	2,753	2,841	1.03	64	West Newbury, .	245	238	.97
24	Medfield, . .	240	246	1.03	65	Pepperell, . .	590	573	.97
25	Reading, . .	1,005	1,028	1.02	66	Southborough, .	304	295	.97
26	Mendon, . .	140	143	1.02	67	Westborough, .	665	645	.97
27	Framingham, .	1,884	1,920	1.02	68	West Boylston, .	196	190	.97
28	Wellesley, . .	821	836	1.02	69	Scituate, . .	433	419	.97
29	Sudbury, . .	169	172	1.02	70	Wayland, . .	340	329	.97
30	Needham, . .	820	832	1.01	71	Upton, . .	307	297	.97
31	Norwell, . .	219	222	1.01	72	Medford, . .	3,944	3,815	.97
32	Whitman, . .	1,198	1,211	1.01	73	Stoneham, .	1,099	1,062	.97
33	Maynard, . .	749	757	1.01	74	Groveland, .	424	408	.96
34	Andover, . .	1,094	1,104	1.01	75	Monson, . .	651	623	.96
35	Bernardston, .	119	120	1.01	76	Brookline, . .	3,619	3,459	.96
36	Petersham,. .	136	137	1.01	77	Groton, . .	312	298	.96
37	Amherst, . .	757	762	1.01	78	Winchester, .	1,593	1,521	.95
38	Gt. Barrington, .	954	960	1.01	79	W. Springfield, .	1,655	1,576	.95
39	Charlemont, .	174	175	1.01	80	E. Bridgewater, .	551	524	.95
40	Barnstable, .	661	661	1.00	81	Wilmington, .	364	346	.95
41	Wales, . .	73	73	1.00	82	Everett, . .	6,250	5,933	.95

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
83	N. Attleborough,	1,256	1,192	.95	143	Braintree,	1,414	1,243	.88
84	Arlington,	1,854	1,755	.95	144	Brimfield,	156	137	.88
85	Conway,	201	190	.95	145	Hadley,	319	280	.88
86	Brockton,	8,479	8,012	.94	146	Sunderland,	147	129	.88
87	Nantucket,	413	390	.94	147	Springfield,	12,989	11,395	.88
88	Beverly,	2,979	2,801	.94	148	Athol,	1,233	1,081	.88
89	Greenfield,	1,580	1,484	.94	149	Billerica,	533	466	.87
90	Nahant,	173	162	.94	150	Williamsburg,	411	358	.87
91	Edgartown,	156	146	.94	151	Oxford,	588	512	.87
92	Townsend,	279	261	.94	152	Millis,	258	224	.87
93	North Andover,	830	776	.93	153	Grafton,	902	782	.87
94	Holden,	422	394	.93	154	Pembroke,	194	168	.87
95	Holbrook,	503	469	.93	155	Boxford,	97	84	.87
96	Topsfield,	116	108	.93	156	Cummington,	134	116	.87
97	Somerville,	12,217	11,334	.93	157	Sterling,	213	184	.86
98	Winthrop,	1,474	1,366	.93	158	Ashby,	139	120	.86
99	Williamstown,	786	728	.93	159	Windsor,	102	88	.86
100	Blackstone,	1,138	1,053	.93	160	Charlton,	370	319	.86
101	Erving,	173	160	.92	161	Acton,	339	292	.86
102	Danvers,	1,496	1,383	.92	162	Ashburnham,	369	317	.86
103	Lexington,	830	767	.92	163	Newton,	6,669	5,727	.86
104	Royalston,	141	130	.92	164	Duxbury,	267	229	.86
105	Brookfield,	354	326	.92	165	Hancock,	77	66	.86
106	Middleborough,	1,280	1,178	.92	166	Chelmsford,	835	713	.85
107	Revere,	3,149	2,898	.92	167	Rutland,	212	181	.85
108	Avon,	414	381	.92	168	Monroe,	61	52	.85
109	Chatham,	244	224	.92	169	Cambridge,	16,594	14,144	.85
110	Rockport,	827	759	.92	170	Rochester,	161	137	.85
111	Plymouth,	2,024	1,857	.92	171	Stoughton,	932	792	.85
112	Hudson,	1,102	1,008	.91	172	Bourne,	312	265	.85
113	Dalton,	644	589	.91	173	Westhampton,	106	90	.85
114	Walpole,	835	763	.91	174	Raynham,	246	208	.85
115	Medway,	439	401	.91	175	Truro,	155	131	.85
116	Franklin,	979	893	.91	176	Pittsfield,	4,707	3,971	.84
117	Ludlow,	760	693	.91	177	Cohasset,	457	385	.84
118	Russell,	169	154	.91	178	Somerset,	519	437	.84
119	Huntington,	294	267	.91	179	Plainville,	211	177	.84
120	Saugus,	1,510	1,371	.91	180	Swansea,	290	243	.84
121	South Hadley,	915	830	.91	181	W. Bridgewater,	405	339	.84
122	Shutesbury,	43	39	.91	182	Buckland,	256	214	.84
123	Essex,	288	261	.91	183	Leverett,	138	115	.83
124	Kingston,	397	358	.90	184	Montgomery,	36	30	.83
125	Westminster,	271	244	.90	185	Georgetown,	316	263	.83
126	Holliston,	506	456	.90	186	Wellfleet,	142	118	.83
127	Enfield,	156	140	.90	187	Wilbraham,	250	207	.83
128	Northbridge,	1,580	1,413	.89	188	Norton,	336	278	.83
129	Weston,	311	277	.89	189	Eastham,	69	57	.83
130	Wareham,	619	551	.89	190	Burlington,	80	66	.83
131	Hamilton,	318	283	.89	191	Montague,	1,251	1,032	.82
132	Fairhaven,	941	837	.89	192	Worcester,	22,589	18,618	.82
133	Belchertown,	398	354	.89	193	Rowley,	294	242	.82
134	West Tisbury,	63	56	.89	194	Lunenburg,	225	185	.82
135	Randolph,	721	640	.89	195	Princeton,	156	128	.82
136	Marion,	151	134	.89	196	Plainfield,	60	49	.82
137	Uxbridge,	809	717	.89	197	Sheffield,	256	209	.82
138	Mansfield,	838	741	.88	198	Westford,	435	355	.82
139	Northborough,	332	293	.88	199	Belmont,	855	697	.82
140	Dana,	110	97	.88	200	Stockbridge,	388	316	.81
141	Hanover,	378	333	.88	201	Carlisle,	97	79	.81
142	Chester,	282	248	.88	202	Hubbardston,	209	170	.81

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
203	N. Marlborough,	192	156	.81
204	Chesterfield,	90	73	.81
205	Northfield,	260	210	.81
206	Taunton,	5,503	4,442	.81
207	New Braintree,	88	71	.81
208	Dunstable,	82	66	.80
209	Westfield,	2,539	2,043	.80
210	Malden,	8,121	6,532	.80
211	Hatfield,	260	209	.80
212	Bolton,	122	98	.80
213	Barre,	437	351	.80
214	Sherborn,	213	171	.80
215	Hanson,	299	240	.80
216	Bellingham,	308	247	.80
217	Dighton,	371	297	.80
218	Chilmark,	30	24	.80
219	Shirley,	319	255	.80
220	Winchendon,	1,162	927	.80
221	Newbury,	210	167	.80
222	Phillipston,	78	62	.79
223	Mattapoisett,	214	170	.79
224	Easthampton,	1,250	992	.79
225	Sandwich,	271	215	.79
226	Attleborough,	2,584	2,045	.79
227	Colrain,	343	271	.79
228	Milford,	2,176	1,716	.79
229	North Reading,	156	123	.79
230	Florida,	99	78	.79
231	Waltham,	3,734	2,941	.79
232	Millbury,	918	723	.79
233	Harwich,	371	292	.79
234	Wenham,	178	140	.79
235	Ipswich,	899	707	.79
236	E. Longmeadow,	360	283	.79
237	Harvard,	163	128	.79
238	Hawley,	97	76	.78
239	Peru,	55	43	.78
240	Oak Bluffs,	224	175	.78
241	Hinsdale,	246	192	.78
242	Boston,	111,450	86,792	.78
243	Norfolk,	176	137	.78
244	Lynnfield,	119	92	.77
245	Oakham,	110	85	.77
246	Haverhill,	6,754	5,215	.77
247	Tyngsborough,	144	111	.77
248	Alford,	48	37	.77
249	N. Brookfield,	488	376	.77
250	Berkley,	187	144	.77
251	Watertown,	2,005	1,539	.77
252	Cheshire,	258	198	.77
253	Granville,	171	131	.77
254	W. Stockbridge,	186	142	.76
255	Woburn,	3,488	2,661	.76
256	Marlborough,	2,962	2,258	.76
257	Southwick,	172	131	.76
258	Westwood,	230	175	.76
259	Egremont,	104	79	.76
260	Sturbridge,	373	283	.76
261	Northampton,	3,346	2,538	.76
262	Dartmouth,	780	591	.76
263	Methuen,	1,989	1,505	.76
264	Templeton,	702	531	.76
265	Worthington,	110	83	.75
266	Leominster,	2,740	2,066	.75
267	Newburyport,	2,375	1,788	.75
268	Becket,	174	131	.75
269	W. Brookfield,	197	148	.75
270	Lynn,	12,558	94,250	.75
271	Gosnold,	16	12	.75
272	Southampton,	160	120	.75
273	Lee,	734	550	.75
274	Peabody,	2,388	1,780	.75
275	Lancaster,	367	273	.74
276	Rehoboth,	357	265	.74
277	Paxton,	89	66	.74
278	Leicester,	774	572	.74
279	Brewster,	111	82	.74
280	Gay Head,	38	28	.74
281	Lakeville,	159	117	.74
282	Clinton,	2,418	1,777	.73
283	Whately,	113	82	.73
284	Halifax,	86	63	.73
285	Freetown,	269	197	.73
286	Deerfield,	378	276	.73
287	Quincy,	7,362	5,364	.73
288	Berlin,	184	134	.73
289	Dracut,	636	463	.73
290	Wendell,	88	64	.73
291	Middleton,	183	133	.73
292	Bedford,	172	125	.73
293	Dover,	138	100	.72
294	New Ashford,	18	13	.72
295	Sharon,	413	298	.72
296	Westport,	529	381	.72
297	Seekonk,	349	251	.72
298	Lanesborough,	146	105	.72
299	Boylston,	142	102	.72
300	Agawam,	552	395	.72
301	Lowell,	14,594	10,390	.71
302	Prescott,	60	48	.71
303	Gill,	157	111	.71
304	Granby,	137	96	.70
305	Warren,	791	552	.70
306	Boxborough,	66	46	.70
307	Salisbury,	286	199	.70
308	Palmer,	1,578	1,094	.69
309	Savoy,	94	65	.69
310	Washington,	55	38	.69
311	Mashpee,	51	35	.69
312	Gardner,	2,270	1,554	.68
313	Spencer,	1,124	769	.68
314	Pelham,	98	67	.68
315	Longmeadow,	189	129	.68
316	Acushnet,	236	161	.68
317	Hampden,	146	99	.68
318	Warwick,	132	89	.67
319	Tewksbury,	245	165	.67
320	Goshen,	70	47	.67
321	Clarksburg,	250	165	.66
322	Adams,	2,354	1,552	.66

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
323	Rowe, . .	105	69	.66	339	Chicopee, . .	3,983	2,363	.59
324	Leyden, . .	72	47	.65	340	Holland, . .	22	13	.59
325	Carver, . .	252	162	.64	341	Richmond, .	102	60	.59
326	New Bedford, .	14,039	8,975	.64	342	Tyringham, .	69	40	.58
327	Ware, . .	1,530	970	.63	343	Lawrence, . .	13,108	7,592	.58
328	Salem, . .	7,025	4,439	.63	344	Fall River, .	22,122	12,590	.57
329	Mt. Washington, .	16	10	.63	345	Fitchburg, . .	6,579	3,742	.57
330	Auburn, . .	499	309	.62	346	Blandford, .	124	70	.56
331	Sandisfield, .	123	76	.62	347	Amesbury, .	1,560	861	.55
332	Canton, . .	873	539	.62	348	Sutton, . .	642	352	.55
333	Hyde Park, .	2,774	1,712	.62	349	Holyoke, . .	10,940	5,780	.53
334	North Adams, .	4,479	2,748	.61	350	Tolland, . .	29	15	.52
335	Monterey, . .	80	49	.61	351	Greenwich, .	92	45	.49
336	Plympton, . .	90	55	.61	352	Southbridge, .	2,109	933	.44
337	Lincoln, . .	156	95	.61	353	Dudley, . .	831	325	.39
338	Hardwick, . .	581	352	.61	354	Webster, . .	2,105	720	.34

Graduated Attendance Table.

In which all the towns in the State are numerically arranged according to the ratio of AVERAGE ATTENDANCE *of children upon the public schools for the school year ending June, 1908, to the whole number of children in town between 5 and 15 years of age, September 1, 1908.*

	COUNTIES.	Ratio of attendance.		COUNTIES.	Ratio of attendance.
1	Barnstable, ...	.96	9	Hampshire, ...	.80
2	Plymouth, ...	.95	10	Berkshire, ...	.76
3	Nantucket, ...	.94	11	Essex, ...	.76
4	Franklin, ...	.89	12	Worcester, ...	.75
5	Dukes, ...	.88	13	Hampden, ...	.73
6	Middlesex, ...	.86	14	Bristol, ...	.67
7	Norfolk, ...	.85			
8	Suffolk, ...	.80		State, ...	.80

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